SteelStik™ Epoxy Putty

J-B Weld Company LLC

Version No: **5.9**
Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: **05/03/2024**
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S.GHS.USA.EN

SECTION 1 Identification

Product Identifier

Product name	SteelStik™ Epoxy Putty
Synonyms	8267 (SteelStik™ Epoxy Putty Stick)
Other means of identification	UFI:SRVQ-J0S9-X008-KKMU

Recommended use of the chemical and restrictions on use

Relevant identified uses	Use according to manufacturer's directions.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	**J-B Weld Company LLC**
Address	400 CMH Road TX 75482 United States
Telephone	903-885-7696
Fax	Not Available
Website	WWW.JBWeld.com
Email	info@JBWeld.com

Emergency phone number

Association / Organisation	**InfoTrac**
Emergency telephone numbers	**Transportation Emergencies: 800-535-5053 or (24 hours)**
Other emergency telephone numbers	**Poison Control Centers: Medical Emergencies 800-222-1222 (24 hours)**

SECTION 2 Hazard(s) identification

Classification of the substance or mixture

Classification	Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2A

Label elements

Hazard pictogram(s)	
Signal word	**Warning**

Hazard statement(s)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

Hazard(s) not otherwise classified

Not Applicable

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

Page 1 continued...

P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P264	Wash all exposed external body areas thoroughly after handling.
P272	Contaminated work clothing must not be allowed out of the workplace.

Precautionary statement(s) Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
7439-89-6	25	iron
72244-98-5	24	trimercaptan ether, propoxylated
90-72-2*	4.5	2,4,6-tris[(dimethylamino)methyl]phenol
1333-86-4	0.5	carbon black
71074-89-0*	0.2	bis[(dimethylamino)methyl]phenol
14807-96-6*	38	Talc
65997-17-3	19	glass, oxide

SECTION 4 First-aid measures

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ▸ Wash out immediately with fresh running water. ▸ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▸ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: ▸ Immediately remove all contaminated clothing, including footwear. ▸ Flush skin and hair with running water (and soap if available). ▸ Seek medical attention in event of irritation.
Inhalation	▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▸ Other measures are usually unnecessary.
Ingestion	▸ Immediately give a glass of water. ▸ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Fire-fighting measures

Extinguishing media

Metal dust fires need to be smothered with sand, inert dry powders.
DO NOT USE WATER, CO2 or FOAM.
- Use DRY sand, graphite powder, dry sodium chloride based extinguishers, G-1 or Met L-X to smother fire.
- **DO NOT** use halogenated fire extinguishing agents.

Special hazards arising from the substrate or mixture

Continued...

Fire Incompatibility	▸ Reacts with acids producing flammable / explosive hydrogen (H2) gas ▸ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Special protective equipment and precautions for fire-fighters

Fire Fighting	▸ Alert Fire Department and tell them location and nature of hazard. ▸ Wear breathing apparatus plus protective gloves in the event of a fire.
Fire/Explosion Hazard	▸ **DO NOT** disturb burning dust. Explosion may result if dust is stirred into a cloud, by providing oxygen to a large surface of hot metal. ▸ **DO NOT** use water or foam as generation of explosive hydrogen may result. Combustible. Will burn if ignited. Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) nitrogen oxides (NOx) sulfur oxides (SOx) metal oxides other pyrolysis products typical of burning organic material. May emit corrosive fumes.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	▸ Clean up all spills immediately. ▸ Avoid contact with skin and eyes. ▸ Wear impervious gloves and safety goggles.
Major Spills	Minor hazard. ▸ Clear area of personnel. ▸ Alert Fire Brigade and tell them location and nature of hazard.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	▸ Avoid all personal contact, including inhalation. ▸ Wear protective clothing when risk of exposure occurs. ▸ Use in a well-ventilated area.
Other information	▸ Store in original containers. ▸ Keep containers securely sealed. ▸ Store in a cool, dry, well-ventilated area.

Conditions for safe storage, including any incompatibilities

Suitable container	▸ Metal can or drum ▸ Packaging as recommended by manufacturer. ▸ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	For frits: ▸ Avoid storage with hydrogen fluoride/ hydrofluoric acid, oxygen difluoride, manganese trifluoride, fluorine and other fluorine containing compounds, manganese trioxide, chlorates, chlorine trifluoride, chlorine trioxide, strong alkalis, metal oxides, concentrated orthophosphoric acid or vinyl acetate. ▸ WARNING: Avoid or control reaction with peroxides. All ***transition meta***l peroxides should be considered as potentially explosive. For example transition metal complexes of alkyl hydroperoxides may decompose explosively. ▸ Many metals may incandesce, react violently, ignite or react explosively upon addition of concentrated nitric acid. ▸ Reacts slowly with water. ▸ **CAUTION** contamination with moisture will liberate explosive hydrogen gas, causing pressure build up in sealed containers. ▸ Reacts violently with caustic soda, other alkalies - generating heat, highly flammable hydrogen gas. ▸ If alkali is dry, heat generated may ignite hydrogen - if alkali is in solution may cause violent foaming Metals exhibit varying degrees of activity. Reaction is reduced in the massive form (sheet, rod, or drop), compared with finely divided forms. The less active metals will not burn in air but: ▸ can react exothermically with oxidising acids to form noxious gases. ▸ Finely divided metal powders develop pyrophoricity when a critical specific surface area is exceeded; this is ascribed to high heat of oxide formation on exposure to air. ▸ Safe handling is possible in relatively low concentrations of oxygen in an inert gas. ▸ Several pyrophoric metals, stored in glass bottles have ignited when the container is broken on impact. ▸ Many metals in elemental form react exothermically with compounds having active hydrogen atoms (such as acids and water) to form flammable hydrogen gas and caustic products. ▸ Elemental metals may react with azo/diazo compounds to form explosive products. ▸ Some elemental metals form explosive products with halogenated hydrocarbons.

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SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Talc	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Talc	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Talc (containing asbestos)	Not Available	Not Available	Not Available	Use asbestos limit
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Talc (not containing asbestos)	20 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Soapstone	20 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	Talc	Talc (containing no asbestos and less than 1% quartz) - respirable	2 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	glass, oxide	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	glass, oxide	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	glass, oxide	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	glass, oxide	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	glass, oxide	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D
US OSHA Permissible Exposure Limits (PELs) Table Z-1	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	carbon black	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	carbon black	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Ca; TWA 0.1 mg PAHs/m3 [Carbon black in presence of polycyclic aromatic hydrocarbons (PAHs)] See Appendix A See Appendix C
US OSHA Permissible Exposure Limits (PELs) Table Z-1	iron	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	iron	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	iron	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	iron	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	iron	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
glass, oxide	15 mg/m3	170 mg/m3	990 mg/m3
2,4,6-tris[(dimethylamino)methyl]phenol	6.5 mg/m3	72 mg/m3	430 mg/m3
carbon black	9 mg/m3	99 mg/m3	590 mg/m3
iron	3.2 mg/m3	35 mg/m3	150 mg/m3

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Ingredient	Original IDLH	Revised IDLH
Talc	1,000 mg/m3	Not Available
trimercaptan ether, propoxylated	Not Available	Not Available
glass, oxide	Not Available	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available	Not Available
carbon black	1,750 mg/m3	Not Available
bis[(dimethylamino)methyl]phenol	Not Available	Not Available
iron	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
trimercaptan ether, propoxylated	D	> 0.1 to ≤ 1 ppm
2,4,6-tris[(dimethylamino)methyl]phenol	E	≤ 0.1 ppm
Notes:	***Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.***	

Exposure controls

Appropriate engineering controls	Metal dusts must be collected at the source of generation as they are potentially explosive. ▸ Avoid ignition sources. ▸ Good housekeeping practices must be maintained.
Individual protection measures, such as personal protective equipment	
Eye and face protection	▸ Safety glasses with side shields. ▸ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] ▸ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.
Skin protection	See Hand protection below
Hands/feet protection	▸ Wear chemical protective gloves, e.g. PVC. ▸ Wear safety footwear or safety gumboots, e.g. Rubber **NOTE:** ▸ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▸ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
Body protection	See Other protection below
Other protection	▸ Overalls. ▸ P.V.C apron. ▸ Barrier cream.

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Grey Putty

Physical state	Non Slump Paste	**Relative density (Water = 1)**	Not Available
Odor	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Available
pH (as supplied)	Not Available	**Decomposition temperature (°C)**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	Not Available

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Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	Not Available
Flash point (°C)	Not Available		
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not Available	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Available	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	Not Available	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water	Immiscible	**pH as a solution (1%)**	Not Available
Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	▸ Presence of heat source and ignition source Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not normally a hazard due to non-volatile nature of product
Ingestion	The material has **NOT** been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Irritation and skin reactions are possible with sensitive skin Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	This material can cause eye irritation and damage in some persons. Contact with the eye by metal dusts may produce mechanical abrasion or foreign body penetration of the eyeball. Iron particles embedded in the eye may cause discolouration of the cornea and iris, and effects on the pupil such as poor rection to light and accommodation.
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.

SteelStik™ Epoxy Putty	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
Talc	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg[1]	Eye: no adverse effect observed (not irritating)[1]
	Inhalation (Rat) LC50: >2.1 mg/l4h[1]	Skin: no adverse effect observed (not irritating)[1]
	Oral (Rat) LD50: >5000 mg/kg[1]	
trimercaptan ether, propoxylated	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >10200 mg/kg[2]	Not Available

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	Oral (Rat) LD50: 2600 mg/kg[2]	

glass, oxide

TOXICITY	IRRITATION
Not Available	Not Available

2,4,6-tris[(dimethylamino)methyl]phenol

TOXICITY	IRRITATION
Dermal (rabbit) LD50: 1280 mg/kg[2]	Eye (rabbit): 0.05 mg/24h - SEVERE
Inhalation (Rat) LC50: >0.5 mg/l/1 hr.[2]	Eye: adverse effect observed (irreversible damage)[1]
Oral (Rat) LD50: 1200 mg/kg[2]	Skin (rabbit): 2 mg/24h - SEVERE
Oral (Rat) LD50: 2500 mg/kg *[2]	Skin: adverse effect observed (corrosive)[1]

carbon black

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >2000 mg/kg[1]	Eye: no adverse effect observed (not irritating)[1]
Oral (Rat) LD50: >2000 mg/kg[1]	Skin: no adverse effect observed (not irritating)[1]

bis[(dimethylamino)methyl]phenol

TOXICITY	IRRITATION
Not Available	Not Available

iron

TOXICITY	IRRITATION
Oral (Rat) LD50: 98600 mg/kg[2]	Not Available

Legend:	***1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances***

TRIMERCAPTAN ETHER, PROPOXYLATED	Polyethers (such as ethoxylated surfactants and polyethylene glycols) are highly susceptible to being oxidized in the air. They then form complex mixtures of oxidation products. Animal testing reveals that whole the pure, non-oxidised surfactant is non-sensitizing, many of the oxidation products are sensitisers. The oxidization products also cause irritation.
GLASS, OXIDE	A similar spherical glass powder was nontoxic to rats at 5,000 mg/kg. All animals survived, gained weight and appeared active and healthy. There were no signs of gross toxicity, adverse pharmacologic effects or abnormal behavior. There are no known reports of subchronic toxicity of nonfibrous glass. There are no known reports of carcinogenicity of nonfibrous glass When tested for primary irritation potential, a similar material caused minimal irritation to eyes and was non-irritating to skin. Dust in excess of recommended exposure limits may result in irritation to the respiratory tract
2,4,6-tris[(dimethylamino)methyl]phenol	Overexposure to most of these materials may cause adverse health effects. Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient. There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing. Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration. Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.
CARBON BLACK	Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported **WARNING:** This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.
SteelStik™ Epoxy Putty & TRIMERCAPTAN ETHER, PROPOXYLATED	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.
TRIMERCAPTAN ETHER, PROPOXYLATED & GLASS, OXIDE & 2,4,6-tris[(dimethylamino)methyl]phenol & CARBON BLACK	No significant acute toxicological data identified in literature search.

Acute Toxicity	✗	**Carcinogenicity**	✗
Skin Irritation/Corrosion	✓	**Reproductivity**	✗
Serious Eye Damage/Irritation	✓	**STOT - Single Exposure**	✗
Respiratory or Skin sensitisation	✓	**STOT - Repeated Exposure**	✗

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Mutagenicity	✗	**Aspiration Hazard**	✗

Legend: ✗ ***– Data either not available or does not fill the criteria for classification***
✓ ***– Data available to make classification***

SECTION 12 Ecological information

Toxicity

SteelStik™ Epoxy Putty

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

Talc

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	89581.016mg/l	2
NOEC(ECx)	720h	Algae or other aquatic plants	918.089mg/l	2
EC50	96h	Algae or other aquatic plants	7202.7mg/l	2

trimercaptan ether, propoxylated

Endpoint	Test Duration (hr)	Species	Value	Source
EC50(ECx)	48h	Crustacea	12mg/l	Not Available
EC50	48h	Crustacea	12mg/l	Not Available
LC50	96h	Fish	87mg/l	Not Available

glass, oxide

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	>1000mg/l	2
NOEC(ECx)	72h	Crustacea	>=1000mg/l	2
EC50	72h	Algae or other aquatic plants	>1000mg/l	2

2,4,6-tris[(dimethylamino)methyl]phenol

Endpoint	Test Duration (hr)	Species	Value	Source
EC50(ECx)	24h	Crustacea	280mg/l	Not Available
EC50	72h	Algae or other aquatic plants	2.8mg/l	2
EC50	48h	Crustacea	>100mg/l	2
LC50	96h	Fish	1000mg/l	Not Available

carbon black

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	>100mg/l	2
EC50	72h	Algae or other aquatic plants	>0.2mg/l	2
EC50	48h	Crustacea	33.076-41.968mg/l	4
NOEC(ECx)	24h	Crustacea	3200mg/l	1

bis[(dimethylamino)methyl]phenol

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

iron

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	48h	Algae or other aquatic plants	0.1-4mg/l	4
EC50	72h	Algae or other aquatic plants	18mg/l	2
EC50	48h	Crustacea	>100mg/l	2
LC50	96h	Fish	0.005-0.008mg/L	4

Legend: ***Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data***

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2,4,6-tris[(dimethylamino)methyl]phenol	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
2,4,6-tris[(dimethylamino)methyl]phenol	LOW (LogKOW = 0.773)

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Mobility in soil

Ingredient	Mobility
2,4,6-tris[(dimethylamino)methyl]phenol	LOW (Log KOC = 15130)

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal	▸ Containers may still present a chemical hazard/ danger when empty. ▸ Return to supplier for reuse/ recycling if possible. Otherwise: ▸ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. ▸ **DO NOT** allow wash water from cleaning or process equipment to enter drains. ▸ It may be necessary to collect all wash water for treatment before disposal. ▸ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▸ Recycle wherever possible or consult manufacturer for recycling options. ▸ Consult State Land Waste Authority for disposal. ▸ Bury or incinerate residue at an approved site.

SECTION 14 Transport information

Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
Talc	Not Available
trimercaptan ether, propoxylated	Not Available
glass, oxide	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available
carbon black	Not Available
bis[(dimethylamino)methyl]phenol	Not Available
iron	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
Talc	Not Available
trimercaptan ether, propoxylated	Not Available
glass, oxide	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available
carbon black	Not Available
bis[(dimethylamino)methyl]phenol	Not Available
iron	Not Available

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

Talc is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5
US - Massachusetts - Right To Know Listed Chemicals
US NIOSH Carcinogen List
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Limits (PELs) Table Z-1

Continued...

US OSHA Permissible Exposure Limits (PELs) Table Z-3
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

trimercaptan ether, propoxylated is found on the following regulatory lists

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

glass, oxide is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5
US - California Proposition 65 - Maximum Allowable Dose Levels (MADLs) for Chemicals Causing Reproductive Toxicity
US - California Proposition 65 - No Significant Risk Levels (NSRLs) for Carcinogens
US - Massachusetts - Right To Know Listed Chemicals
US Clean Air Act - Hazardous Air Pollutants
US CWA (Clean Water Act) - Priority Pollutants
US CWA (Clean Water Act) - Toxic Pollutants
US DOE Temporary Emergency Exposure Limits (TEELs)
US National Toxicology Program (NTP) 15th Report Part B. Reasonably Anticipated to be a Human Carcinogen
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Limits (PELs) Table Z-1
US OSHA Permissible Exposure Limits (PELs) Table Z-3
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

2,4,6-tris[(dimethylamino)methyl]phenol is found on the following regulatory lists

US DOE Temporary Emergency Exposure Limits (TEELs)
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

carbon black is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5
US - California Proposition 65 - Carcinogens
US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List
US - Massachusetts - Right To Know Listed Chemicals
US DOE Temporary Emergency Exposure Limits (TEELs)
US NIOSH Carcinogen List
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Limits (PELs) Table Z-1
US OSHA Permissible Exposure Limits (PELs) Table Z-3
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

bis[(dimethylamino)methyl]phenol is found on the following regulatory lists

Not Applicable

iron is found on the following regulatory lists

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5
US DOE Temporary Emergency Exposure Limits (TEELs)
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Limits (PELs) Table Z-1
US OSHA Permissible Exposure Limits (PELs) Table Z-3
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

Additional Regulatory Information

Not Applicable

ECHA SUMMARY

Ingredient	CAS number	Index No	ECHA Dossier
Talc	14807-96-6*	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	Carc. 1A; Eye Irrit. 2; STOT RE 1; Acute Tox. 4; STOT SE 3; Aquatic Chronic 4; Acute Tox. 3	GHS08; Dgr; GHS06	H350; H319; H372; H302; H335; H413; H331

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
trimercaptan ether, propoxylated	72244-98-5	Not Available	Not Available

Continued...

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Skin Sens. 1; Aquatic Chronic 3	GHS07; Wng	H317; H412
2	Skin Sens. 1; Aquatic Chronic 3; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2	GHS07; Wng	H317; H412; H302; H315; H319

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
glass, oxide	65997-17-3	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	Carc. 1B; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; STOT RE 2	GHS08; Dgr	H350; H315; H319; H335; H373

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
2,4,6-tris[(dimethylamino)methyl]phenol	90-72-2*	603-069-00-0	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2	GHS07; Wng	H302; H315; H319
2	Acute Tox. 4; Skin Corr. 1C; Eye Dam. 1; Skin Sens. 1B; Acute Tox. 4; Aquatic Chronic 2	GHS05; Dgr; GHS09	H314; H318; H317; H290; H312; H411; H301; H330

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
carbon black	1333-86-4	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	STOT SE 3; Eye Irrit. 2; STOT RE 1; Self-heat. 1; Skin Irrit. 2; STOT SE 1; Aquatic Chronic 1; Flam. Sol. 2; Acute Tox. 4; Carc. 1A	GHS08; Dgr; GHS06; GHS02; GHS09	H335; H319; H372; H251; H228; H315; H370; H410; H332; H350

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
bis[(dimethylamino)methyl]phenol	71074-89-0*	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4; Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; STOT SE 3	GHS05; Dgr	H302; H312; H314; H318; H335
2	Acute Tox. 4; Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; STOT SE 3; Skin Sens. 1B	GHS05; Dgr	H302; H312; H314; H318; H335; H317

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
iron	7439-89-6	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Sol. 1; Eye Irrit. 2; STOT SE 3	GHS07; GHS02; Dgr	H228; H319; H335
2	Flam. Sol. 1; Eye Irrit. 2; STOT SE 3	GHS07; GHS02; Dgr	H228; H319; H335
1	Not Classified	Not Available	Not Available
2	Flam. Sol. 1; Self-heat. 1; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; Aquatic Acute 1; Aquatic Chronic 1; STOT SE 3; STOT SE 3; STOT RE 2; Pyr. Sol. 1; Water-react. 2	GHS02; Dgr; GHS09; GHS08	H228; H251; H302; H315; H319; H400; H410; H335; H370; H372; H250; H261

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 hazard categories

Flammable (Gases, Aerosols, Liquids, or Solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No

Continued...

Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	Yes
Respiratory or Skin Sensitization	Yes
Serious eye damage or eye irritation	Yes
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	No

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

None Reported

US. EPCRA Section 313 Toxic Release Inventory (TRI) (40 CFR 372)

None Reported

Additional Federal Regulatory Information

Not Applicable

State Regulations

US. California Proposition 65

WARNING: This product can expose you to chemicals including **carbon black**, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov

Additional State Regulatory Information

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (bis[(dimethylamino)methyl]phenol)
Canada - DSL	Yes
Canada - NDSL	No (Talc; trimercaptan ether, propoxylated; glass, oxide; 2,4,6-tris[(dimethylamino)methyl]phenol; carbon black; bis[(dimethylamino)methyl]phenol; iron)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	No (trimercaptan ether, propoxylated)
Japan - ENCS	No (Talc; trimercaptan ether, propoxylated; glass, oxide; iron)
Korea - KECI	No (bis[(dimethylamino)methyl]phenol)
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	No (trimercaptan ether, propoxylated; bis[(dimethylamino)methyl]phenol)
Vietnam - NCI	Yes
Russia - FBEPH	No (trimercaptan ether, propoxylated; bis[(dimethylamino)methyl]phenol)
Legend:	***Yes = All CAS declared ingredients are on the inventory*** ***No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.***

SECTION 16 Other information

Revision Date	05/03/2024
Initial Date	09/13/2020

SDS Version Summary

Continued...

Version	Date of Update	Sections Updated
4.9	05/02/2024	Toxicological information - Acute Health (eye), Toxicological information - Acute Health (inhaled), Toxicological information - Acute Health (skin), Hazards identification - Classification, Exposure controls / personal protection - Engineering Control, Ecological Information - Environmental, Firefighting measures - Fire Fighter (extinguishing media), Firefighting measures - Fire Fighter (fire/explosion hazard), Firefighting measures - Fire Fighter (fire incompatibility), Composition / information on ingredients - Ingredients, Stability and reactivity - Instability Condition, Handling and storage - Storage (storage incompatibility)

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.
The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios.

Powered by AuthorITe, from Chemwatch.

end of SDS

SteelStik™ Epoxy Putty

J-B Weld Company, LLC

Version No: **5.9**
Safety Data Sheet according to WHMIS 2015 requirements

Issue Date: **05/03/2024**
Print Date: **05/03/2024**
S.GHS.CAN.EN

SECTION 1 Identification

Product Identifier

Product name	SteelStik™ Epoxy Putty
Synonyms	8267 (SteelStik™ Epoxy Putty Stick)
Other means of identification	UFI:SRVQ-J0S9-X008-KKMU

Recommended use of the chemical and restrictions on use

Relevant identified uses	Use according to manufacturer's directions.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	**J-B Weld Company, LLC**
Address	400 CMH Road Sulphur Springs, TX 75482 United States
Telephone	903-885-7696
Fax	903-885-5911
Website	www.jbweld.com
Email	info@jbweld.com

Emergency phone number

Association / Organisation	**InfoTrac**
Emergency telephone numbers	**For US and Canada (24 hour): 1-800-535-5053**
Other emergency telephone numbers	**Not Available**

SECTION 2 Hazard(s) identification

Classification of the substance or mixture

NFPA 704 diamond

Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Canadian WHMIS Symbols

Classification	Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2A

Label elements

Hazard pictogram(s)	

Page 1 continued...

Signal word	**Warning**

Hazard statement(s)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

Physical and Health hazard(s) not otherwise classified

Not Applicable

Precautionary statement(s) Prevention

P280	Wear protective gloves, protective clothing, eye protection and face protection.
P261	Avoid breathing mist/vapours/spray.
P264	Wash all exposed external body areas thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s) Response

P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
7439-89-6	25	iron
72244-98-5	24	trimercaptan ether, propoxylated
90-72-2*	4.5	2,4,6-tris[(dimethylamino)methyl]phenol
1333-86-4	0.5	carbon black
71074-89-0*	0.2	bis[(dimethylamino)methyl]phenol
14807-96-6*	38	Talc
65997-17-3	19	glass, oxide

SECTION 4 First-aid measures

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ▸ Wash out immediately with fresh running water. ▸ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▸ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: ▸ Immediately remove all contaminated clothing, including footwear. ▸ Flush skin and hair with running water (and soap if available). ▸ Seek medical attention in event of irritation.
Inhalation	▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▸ Other measures are usually unnecessary.
Ingestion	▸ Immediately give a glass of water. ▸ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Continued...

SECTION 5 Fire-fighting measures

Extinguishing media

Metal dust fires need to be smothered with sand, inert dry powders.
DO NOT USE WATER, CO2 or FOAM.

- Use DRY sand, graphite powder, dry sodium chloride based extinguishers, G-1 or Met L-X to smother fire.
- **DO NOT** use halogenated fire extinguishing agents.

Special hazards arising from the substrate or mixture

Fire Incompatibility	▸ Reacts with acids producing flammable / explosive hydrogen (H2) gas ▸ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Special protective equipment and precautions for fire-fighters

Fire Fighting	▸ Alert Fire Department and tell them location and nature of hazard. ▸ Wear breathing apparatus plus protective gloves in the event of a fire.
Fire/Explosion Hazard	▸ **DO NOT** disturb burning dust. Explosion may result if dust is stirred into a cloud, by providing oxygen to a large surface of hot metal. ▸ **DO NOT** use water or foam as generation of explosive hydrogen may result. Combustible. Will burn if ignited. Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) nitrogen oxides (NOx) sulfur oxides (SOx) metal oxides other pyrolysis products typical of burning organic material. May emit corrosive fumes.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	▸ Clean up all spills immediately. ▸ Avoid contact with skin and eyes. ▸ Wear impervious gloves and safety goggles.
Major Spills	Minor hazard. ▸ Clear area of personnel. ▸ Alert Fire Brigade and tell them location and nature of hazard.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	▸ Avoid all personal contact, including inhalation. ▸ Wear protective clothing when risk of exposure occurs. ▸ Use in a well-ventilated area.
Other information	▸ Store in original containers. ▸ Keep containers securely sealed. ▸ Store in a cool, dry, well-ventilated area.

Conditions for safe storage, including any incompatibilities

Suitable container	▸ Metal can or drum ▸ Packaging as recommended by manufacturer. ▸ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	For frits: ▸ Avoid storage with hydrogen fluoride/ hydrofluoric acid, oxygen difluoride, manganese trifluoride, fluorine and other fluorine containing compounds, manganese trioxide, chlorates, chlorine trifluoride, chlorine trioxide, strong alkalis, metal oxides, concentrated orthophosphoric acid or vinyl acetate. ▸ WARNING: Avoid or control reaction with peroxides. All ***transition meta***l peroxides should be considered as potentially explosive. For example transition metal complexes of alkyl hydroperoxides may decompose explosively. ▸ Many metals may incandesce, react violently, ignite or react explosively upon addition of concentrated nitric acid. ▸ Reacts slowly with water. ▸ **CAUTION** contamination with moisture will liberate explosive hydrogen gas, causing pressure build up in sealed containers. ▸ Reacts violently with caustic soda, other alkalies - generating heat, highly flammable hydrogen gas. ▸ If alkali is dry, heat generated may ignite hydrogen - if alkali is in solution may cause violent foaming

Continued...

Metals exhibit varying degrees of activity. Reaction is reduced in the massive form (sheet, rod, or drop), compared with finely divided forms. The less active metals will not burn in air but:

- can react exothermically with oxidising acids to form noxious gases.
- Finely divided metal powders develop pyrophoricity when a critical specific surface area is exceeded; this is ascribed to high heat of oxide formation on exposure to air.
- Safe handling is possible in relatively low concentrations of oxygen in an inert gas.
- Several pyrophoric metals, stored in glass bottles have ignited when the container is broken on impact.
- Many metals in elemental form react exothermically with compounds having active hydrogen atoms (such as acids and water) to form flammable hydrogen gas and caustic products.
- Elemental metals may react with azo/diazo compounds to form explosive products.
- Some elemental metals form explosive products with halogenated hydrocarbons.

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	Talc	Talc, (respirable fraction++)	2 mg/m3	Not Available	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	Talc	Not Available	Not Available	Not Available	Not Available	TLV® Basis: Use Asbestos TLV®
Canada - Manitoba Occupational Exposure Limits	Talc	Not Available	2 mg/m3	Not Available	Not Available	TLV® Basis: Pulm fibrosis; pulm func
Canada - Prince Edward Island Occupational Exposure Limits	Talc	Talc - Containing asbestos fibers	Not Available	Not Available	Not Available	TLV® Basis: Use Asbestos TLV®
Canada - Prince Edward Island Occupational Exposure Limits	Talc	Talc - Containing no asbestos fibers	2 mg/m3	Not Available	Not Available	TLV® Basis: Pulm fibrosis; pulm func
Canada - British Columbia Occupational Exposure Limits	Talc	Talc - Containing no asbestos fibres, Respirable	2 mg/m3	Not Available	Not Available	(E) - the value is for particulate matter containing no asbestos and less than 1% crystalline silica.
Canada - British Columbia Occupational Exposure Limits	Talc	Talc - Containing asbestos fibres	0.1 f/cc	Not Available	Not Available	(K) - should not exceed 2 mg/m3 respirable particulate.
Canada - Ontario Occupational Exposure Limits	Talc	Talc, containing no asbestos	2 f/cc	Not Available	Not Available	(K) Should not exceed 2 mg/m3 respirable particulate mass.
Canada - Ontario Occupational Exposure Limits	Talc	Talc, containing no asbestos (Respirable fraction)	2 mg/m3	Not Available	Not Available	(R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency. (E) The value is for particulate matter containing no asbestos and < 1 per cent crystalline silica.
Canada - Nova Scotia Occupational Exposure Limits	Talc	Soapstone	6 mg/m3	Not Available	Not Available	TLV Basis: lower respiratory tract irritation. Particulate matter containing no asbestos and < 1% crystalline silica.
Canada - Nova Scotia Occupational Exposure Limits	Talc	Soapstone	3 mg/m3	Not Available	Not Available	TLV Basis: lower respiratory tract irritation. Particulate matter containing no asbestos and < 1% crystalline silica.
Canada - Nova Scotia Occupational Exposure Limits	Talc	Talc - Containing no asbestos fibers	2 mg/m3	Not Available	Not Available	TLV Basis: lower respiratory tract irritation
Canada - Nova Scotia Occupational Exposure Limits	Talc	Talc - Containing asbestos fibers	Not Available	Not Available	2 mg/m3	Use asbestos TLV, not to exceed stated ceiling. TLV Basis/Critical Effect(s): asbestosis; cancer
Canada - Alberta Occupational Exposure Limits	Talc	Talc: Respirable particulate containing no asbestos fibres	2 mg/m3	Not Available	Not Available	Not Available
Canada - Alberta Occupational Exposure Limits	Talc	Soapstone: Respirable	3 mg/m3	Not Available	Not Available	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Alberta Occupational Exposure Limits	Talc	Soapstone: Total (no asbestos and less than 1% crystalline silica)	6 mg/m3	Not Available	Not Available	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Northwest Territories Occupational Exposure Limits	Talc	Talc, (respirable fraction)	2 mg/m3	Not Available	Not Available	Not Available
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	Talc	Talc, fibrous (note 4)	1 f/cc	Not Available	Not Available	C1: carcinogenic effect detected in humans EM: A substance to which exposure must be reduced to a minimum Note 4: Permissible exposure values in number of respirable fibres per cm3
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	Talc	Talc, non fibrous - Respirable dust	2 mg/m3	Not Available	Not Available	Note 1: The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1%.

Continued...

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	glass, oxide	Mineral wool	Not Available	Not Available	Not Available	(See Table 11)
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Inhalable fraction++	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Respirable fraction++	3 mg/m3	6 mg/m3	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) Not Otherwise Classified (PNOC)	10 mg/m3	Not Available	Not Available	(N) - the 8-hour TWA listed in the Table is for the total dust. The substance also has an 8-hour TWA of 3 mg/m 3 for the respirable fraction.
Canada - Ontario Occupational Exposure Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Inhalable fraction)	10 mg/m3	Not Available	Not Available	(I) Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency.
Canada - Ontario Occupational Exposure Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Respirable fraction)	3 mg/m3	Not Available	Not Available	(R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency.
Canada - Nova Scotia Occupational Exposure Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) [NOS] Inhalable particles	10 mg/m3	Not Available	Not Available	See Appendix B current TLV/BEI Book
Canada - Nova Scotia Occupational Exposure Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) [NOS] Respirable particles	3 mg/m3	Not Available	Not Available	See Appendix B current TLV/BEI Book
Canada - Alberta Occupational Exposure Limits	glass, oxide	Particulate Not Otherwise Regulated: Respirable	3 mg/m3	Not Available	Not Available	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Alberta Occupational Exposure Limits	glass, oxide	Particulate Not Otherwise Regulated: Total	10 mg/m3	Not Available	Not Available	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Northwest Territories Occupational Exposure Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Inhalable fraction	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Respirable fraction	3 mg/m3	6 mg/m3	Not Available	Not Available
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	glass, oxide	Particulates Not Otherwise Classified (PNOC) - Total dust	10 mg/m3	Not Available	Not Available	Note 1: The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1%.
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	carbon black	Carbon black	3.5 mg/m3	7 mg/m3	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	carbon black	Carbon black	3.5 mg/m3	7 mg/m3	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	carbon black	Not Available	3 mg/m3	Not Available	Not Available	TLV® Basis: Bronchitis
Canada - Prince Edward Island Occupational Exposure Limits	carbon black	Carbon black	3 mg/m3	Not Available	Not Available	TLV® Basis: Bronchitis
Canada - British Columbia Occupational Exposure Limits	carbon black	Carbon black, Inhalable	3 mg/m3	Not Available	Not Available	Not Available
Canada - Ontario Occupational Exposure Limits	carbon black	Particles (Insoluble or Poorly Soluble) Not Otherwise	3 mg/m3	Not Available	Not Available	(R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling

Continued...

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
		Specified (PNOS) (Respirable fraction)				with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency.
Canada - Ontario Occupational Exposure Limits	carbon black	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Inhalable fraction)	10 mg/m3	Not Available	Not Available	(I) Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency.
Canada - Nova Scotia Occupational Exposure Limits	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Not Available
Canada - Alberta Occupational Exposure Limits	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits	carbon black	Carbon black	3.5 mg/m3	7 mg/m3	Not Available	Not Available
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	carbon black	Carbon black - inhalable dust	3 mg/m3	Not Available	Not Available	C3: carcinogenic effect detected in animals
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	iron	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Respirable fraction++	3 mg/m3	6 mg/m3	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	iron	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Inhalable fraction++	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - Ontario Occupational Exposure Limits	iron	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Inhalable fraction)	10 mg/m3	Not Available	Not Available	(I) Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency.
Canada - Ontario Occupational Exposure Limits	iron	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Respirable fraction)	3 mg/m3	Not Available	Not Available	(R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency.
Canada - Nova Scotia Occupational Exposure Limits	iron	Particles (Insoluble or Poorly Soluble) [NOS] Inhalable particles	10 mg/m3	Not Available	Not Available	See Appendix B current TLV/BEI Book
Canada - Nova Scotia Occupational Exposure Limits	iron	Particles (Insoluble or Poorly Soluble) [NOS] Respirable particles	3 mg/m3	Not Available	Not Available	See Appendix B current TLV/BEI Book
Canada - Alberta Occupational Exposure Limits	iron	Particulate Not Otherwise Regulated: Total	10 mg/m3	Not Available	Not Available	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Alberta Occupational Exposure Limits	iron	Particulate Not Otherwise Regulated: Respirable	3 mg/m3	Not Available	Not Available	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Northwest Territories Occupational Exposure Limits	iron	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Respirable fraction	3 mg/m3	6 mg/m3	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits	iron	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Inhalable fraction	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	iron	Particulates Not Otherwise Classified (PNOC) - Total dust	10 mg/m3	Not Available	Not Available	Note 1: The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1%.

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
glass, oxide	15 mg/m3	170 mg/m3	990 mg/m3

Continued...

Ingredient	TEEL-1	TEEL-2	TEEL-3
2,4,6-tris[(dimethylamino)methyl]phenol	6.5 mg/m3	72 mg/m3	430 mg/m3
carbon black	9 mg/m3	99 mg/m3	590 mg/m3
iron	3.2 mg/m3	35 mg/m3	150 mg/m3

Ingredient	Original IDLH	Revised IDLH
Talc	1,000 mg/m3	Not Available
trimercaptan ether, propoxylated	Not Available	Not Available
glass, oxide	Not Available	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available	Not Available
carbon black	1,750 mg/m3	Not Available
bis[(dimethylamino)methyl]phenol	Not Available	Not Available
iron	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
trimercaptan ether, propoxylated	D	> 0.1 to ≤ 1 ppm
2,4,6-tris[(dimethylamino)methyl]phenol	E	≤ 0.1 ppm
Notes:	***Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.***	

Exposure controls

Appropriate engineering controls	Metal dusts must be collected at the source of generation as they are potentially explosive. ▸ Avoid ignition sources. ▸ Good housekeeping practices must be maintained.
Individual protection measures, such as personal protective equipment	
Eye and face protection	▸ Safety glasses with side shields. ▸ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] ▸ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.
Skin protection	See Hand protection below
Hands/feet protection	▸ Wear chemical protective gloves, e.g. PVC. ▸ Wear safety footwear or safety gumboots, e.g. Rubber **NOTE:** ▸ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▸ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
Body protection	See Other protection below
Other protection	▸ Overalls. ▸ P.V.C apron. ▸ Barrier cream.

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Grey Putty

Physical state	Non Slump Paste	**Relative density (Water = 1)**	Not Available
Odor	Not Available	**Partition coefficient n-octanol / water**	Not Available

Continued...

Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Available
pH (as supplied)	Not Available	**Decomposition temperature (°C)**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	Not Available
Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	Not Available
Flash point (°C)	Not Available		
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not Available	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Available	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	Not Available	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water	Immiscible	**pH as a solution (1%)**	Not Available
Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	▸ Presence of heat source and ignition source Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not normally a hazard due to non-volatile nature of product
Ingestion	The material has **NOT** been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Irritation and skin reactions are possible with sensitive skin Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	This material can cause eye irritation and damage in some persons. Contact with the eye by metal dusts may produce mechanical abrasion or foreign body penetration of the eyeball. Iron particles embedded in the eye may cause discolouration of the cornea and iris, and effects on the pupil such as poor rection to light and accommodation.
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.

SteelStik™ Epoxy Putty	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
Talc	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg[1]	Eye: no adverse effect observed (not irritating)[1]
	Inhalation (Rat) LC50: >2.1 mg/l4h[1]	Skin: no adverse effect observed (not irritating)[1]

Continued...

	Oral (Rat) LD50: >5000 mg/kg[1]

trimercaptan ether, propoxylated

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >10200 mg/kg[2]	Not Available
Oral (Rat) LD50: 2600 mg/kg[2]	

glass, oxide

TOXICITY	IRRITATION
Not Available	Not Available

2,4,6-tris[(dimethylamino)methyl]phenol

TOXICITY	IRRITATION
Dermal (rabbit) LD50: 1280 mg/kg[2]	Eye (rabbit): 0.05 mg/24h - SEVERE
Inhalation (Rat) LC50: >0.5 mg/l/1 hr.[2]	Eye: adverse effect observed (irreversible damage)[1]
Oral (Rat) LD50: 1200 mg/kg[2]	Skin (rabbit): 2 mg/24h - SEVERE
Oral (Rat) LD50: 2500 mg/kg *[2]	Skin: adverse effect observed (corrosive)[1]

carbon black

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >2000 mg/kg[1]	Eye: no adverse effect observed (not irritating)[1]
Oral (Rat) LD50: >2000 mg/kg[1]	Skin: no adverse effect observed (not irritating)[1]

bis[(dimethylamino)methyl]phenol

TOXICITY	IRRITATION
Not Available	Not Available

iron

TOXICITY	IRRITATION
Oral (Rat) LD50: 98600 mg/kg[2]	Not Available

Legend: ***1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances***

TRIMERCAPTAN ETHER, PROPOXYLATED	Polyethers (such as ethoxylated surfactants and polyethylene glycols) are highly susceptible to being oxidized in the air. They then form complex mixtures of oxidation products. Animal testing reveals that whole the pure, non-oxidised surfactant is non-sensitizing, many of the oxidation products are sensitisers. The oxidization products also cause irritation.
GLASS, OXIDE	A similar spherical glass powder was nontoxic to rats at 5,000 mg/kg. All animals survived, gained weight and appeared active and healthy. There were no signs of gross toxicity, adverse pharmacologic effects or abnormal behavior. There are no known reports of subchronic toxicity of nonfibrous glass. There are no known reports of carcinogenicity of nonfibrous glass When tested for primary irritation potential, a similar material caused minimal irritation to eyes and was non-irritating to skin. Dust in excess of recommended exposure limits may result in irritation to the respiratory tract
2,4,6-tris[(dimethylamino)methyl]phenol	Overexposure to most of these materials may cause adverse health effects. Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient. There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing. Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration. Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.
CARBON BLACK	Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported **WARNING:** This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.
SteelStik™ Epoxy Putty & TRIMERCAPTAN ETHER, PROPOXYLATED	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.
TRIMERCAPTAN ETHER, PROPOXYLATED & GLASS, OXIDE & 2,4,6-tris[(dimethylamino)methyl]phenol & CARBON BLACK	No significant acute toxicological data identified in literature search.

Acute Toxicity	✗	**Carcinogenicity**	✗

Continued...

Skin Irritation/Corrosion	✔	**Reproductivity**	✘
Serious Eye Damage/Irritation	✔	**STOT - Single Exposure**	✘
Respiratory or Skin sensitisation	✔	**STOT - Repeated Exposure**	✘
Mutagenicity	✘	**Aspiration Hazard**	✘

Legend: ✘ *– Data either not available or does not fill the criteria for classification*
✔ *– Data available to make classification*

SECTION 12 Ecological information

Toxicity

SteelStik™ Epoxy Putty

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

Talc

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	89581.016mg/l	2
NOEC(ECx)	720h	Algae or other aquatic plants	918.089mg/l	2
EC50	96h	Algae or other aquatic plants	7202.7mg/l	2

trimercaptan ether, propoxylated

Endpoint	Test Duration (hr)	Species	Value	Source
EC50(ECx)	48h	Crustacea	12mg/l	Not Available
EC50	48h	Crustacea	12mg/l	Not Available
LC50	96h	Fish	87mg/l	Not Available

glass, oxide

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	>1000mg/l	2
NOEC(ECx)	72h	Crustacea	>=1000mg/l	2
EC50	72h	Algae or other aquatic plants	>1000mg/l	2

2,4,6-tris[(dimethylamino)methyl]phenol

Endpoint	Test Duration (hr)	Species	Value	Source
EC50(ECx)	24h	Crustacea	280mg/l	Not Available
EC50	72h	Algae or other aquatic plants	2.8mg/l	2
EC50	48h	Crustacea	>100mg/l	2
LC50	96h	Fish	1000mg/l	Not Available

carbon black

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	>100mg/l	2
EC50	72h	Algae or other aquatic plants	>0.2mg/l	2
EC50	48h	Crustacea	33.076-41.968mg/l	4
NOEC(ECx)	24h	Crustacea	3200mg/l	1

bis[(dimethylamino)methyl]phenol

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

iron

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	48h	Algae or other aquatic plants	0.1-4mg/l	4
EC50	72h	Algae or other aquatic plants	18mg/l	2
EC50	48h	Crustacea	>100mg/l	2
LC50	96h	Fish	0.005-0.008mg/L	4

Legend: *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2,4,6-tris[(dimethylamino)methyl]phenol	HIGH	HIGH

Continued...

Bioaccumulative potential

Ingredient	Bioaccumulation
2,4,6-tris[(dimethylamino)methyl]phenol	LOW (LogKOW = 0.773)

Mobility in soil

Ingredient	Mobility
2,4,6-tris[(dimethylamino)methyl]phenol	LOW (Log KOC = 15130)

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal	▸ Containers may still present a chemical hazard/ danger when empty. ▸ Return to supplier for reuse/ recycling if possible. Otherwise: ▸ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. ▸ **DO NOT** allow wash water from cleaning or process equipment to enter drains. ▸ It may be necessary to collect all wash water for treatment before disposal. ▸ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▸ Recycle wherever possible or consult manufacturer for recycling options. ▸ Consult State Land Waste Authority for disposal. ▸ Bury or incinerate residue at an approved site.

SECTION 14 Transport information

Land transport (TDG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
Talc	Not Available
trimercaptan ether, propoxylated	Not Available
glass, oxide	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available
carbon black	Not Available
bis[(dimethylamino)methyl]phenol	Not Available
iron	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
Talc	Not Available
trimercaptan ether, propoxylated	Not Available
glass, oxide	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available
carbon black	Not Available
bis[(dimethylamino)methyl]phenol	Not Available
iron	Not Available

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations.

Talc is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
Canada Domestic Substances List (DSL)

Continued...

Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS
Chemical Footprint Project - Chemicals of High Concern List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

trimercaptan ether, propoxylated is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
Canada Domestic Substances List (DSL)

glass, oxide is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
Canada Domestic Substances List (DSL)
Chemical Footprint Project - Chemicals of High Concern List
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

2,4,6-tris[(dimethylamino)methyl]phenol is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
Canada Domestic Substances List (DSL)
Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

carbon black is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
Canada Domestic Substances List (DSL)
Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS
Chemical Footprint Project - Chemicals of High Concern List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

bis[(dimethylamino)methyl]phenol is found on the following regulatory lists

Not Applicable

iron is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
Canada Domestic Substances List (DSL)
Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

Additional Regulatory Information

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (bis[(dimethylamino)methyl]phenol)
Canada - DSL	Yes
Canada - NDSL	No (Talc; trimercaptan ether, propoxylated; glass, oxide; 2,4,6-tris[(dimethylamino)methyl]phenol; carbon black; bis[(dimethylamino)methyl]phenol; iron)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	No (trimercaptan ether, propoxylated)
Japan - ENCS	No (Talc; trimercaptan ether, propoxylated; glass, oxide; iron)
Korea - KECI	No (bis[(dimethylamino)methyl]phenol)
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	No (trimercaptan ether, propoxylated; bis[(dimethylamino)methyl]phenol)
Vietnam - NCI	Yes
Russia - FBEPH	No (trimercaptan ether, propoxylated; bis[(dimethylamino)methyl]phenol)
Legend:	***Yes = All CAS declared ingredients are on the inventory*** ***No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.***

SECTION 16 Other information

Revision Date	05/03/2024
Initial Date	09/13/2020

SDS Version Summary

Continued...

Version	Date of Update	Sections Updated
4.9	05/02/2024	Toxicological information - Acute Health (eye), Toxicological information - Acute Health (inhaled), Toxicological information - Acute Health (skin), Hazards identification - Classification, Exposure controls / personal protection - Engineering Control, Ecological Information - Environmental, Firefighting measures - Fire Fighter (extinguishing media), Firefighting measures - Fire Fighter (fire/explosion hazard), Firefighting measures - Fire Fighter (fire incompatibility), Composition / information on ingredients - Ingredients, Stability and reactivity - Instability Condition, Handling and storage - Storage (storage incompatibility)

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.
The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios.

Powered by AuthorITe, from Chemwatch.

end of SDS

SteelStik™ Epoxy Putty

J-B Weld Company, LLC

Version Num: **5.9**
Fiche de données de sécurité selon les exigences du SIMDUT 2015

Date d'émission: **05/03/2024**
Date d'impression: **05/06/2024**
S.GHS.CAN.FR

SECTION 1 Identification

Identificateur de produit

Nom du produit	SteelStik™ Epoxy Putty
Synonymes	8267 (SteelStik™ Epoxy Putty Stick)
Autres moyens d'identification	UFI:SRVQ-J0S9-X008-KKMU

Utilisation recommandée de la substance chimique et les restrictions sur l'utilisation

Utilisations identifiées pertinentes	Utilisé selon les instructions du fabricant.

Nom, adresse et numéro de téléphone du fabricant du produit chimique, importateur et autre partie responsable

Nom commercial de l'entreprise	**J-B Weld Company, LLC**
Adresse	400 CMH Road Sulphur Springs, TX 75482 United States
Téléphone	903-885-7696
Fax	903-885-5911
Site Internet	www.jbweld.com
Courriel	info@jbweld.com

Numéros de téléphone d'urgence

Association / Organisation	**InfoTrac**
Numéro de téléphone d'appel d'urgence	**For US and Canada (24 hour): 1-800-535-5053**
Autres numéros de téléphone d'urgence	**Pas Disponible**

SECTION 2 Identification des dangers

Classification de la substance ou du mélange

Diamant NFPA 704

Remarque : Les numéros de catégorie de danger trouvés dans la classification SGH à la section 2 de ces FDS ne doivent PAS être utilisés pour remplir le losange NFPA 704. Bleu = Santé Rouge = Feu Jaune = Réactivité Blanc = Spécial (oxydant ou substance réactive à l'eau)

Symboles SIMDUT canadiennes

Classification	Corrosif/irritant pour la peau, catégorie de danger 2, Sensibilisation cutanée, catégories de danger 1, Lésions oculaires graves/irritation oculaire, catégorie de danger 2A

Éléments d'étiquetage

Page 1 continued...

Pictogramme(s) de danger	
Mention d'avertissement	**Attention**

Déclaration(s) sur les risques

H315	Provoque une irritation cutanée.
H317	Peut provoquer une allergie cutanée.
H319	Provoque une sévère irritation des yeux.

Danger physique et risque pour la santé non classé ailleurs

N'est pas applicable

Déclarations de Sécurité: Prévention

P280	Porter des gants de protection, des vêtements de protection, un équipement de protection des yeux et du visage.
P261	Éviter de respirer les brouillards/ vapeurs/aérosols.
P264	Se laver tout le corps extérieur exposé soigneusement après manipulation.
P272	Les vêtements de travail contaminés ne devraient pas sortir du lieu de travail

Déclarations de Sécurité: Réponse

P302+P352	EN CAS DE CONTACT AVEC LA PEAU: Laver abondamment à l'eau et au savon.
P305+P351+P338	EN CAS DE CONTACT AVEC LES YEUX: Rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.
P333+P313	En cas d'irritation ou d'éruption cutanée: consulter un médecin.
P337+P313	Si l'irritation oculaire persiste: consulter un médecin
P362+P364	Enlever les vêtements contaminés et les laver avant réutilisation.

Déclarations de Sécurité: Stockage

N'est pas applicable

Déclarations de Sécurité: Élimination

P501	Éliminer le contenu/récipient dans un centre de collecte des déchets dangereux ou spéciaux autorisé conformément à toute réglementation locale.

SECTION 3 Composition/informations sur les composants

Substances

Voir la section ci-dessous pour la composition des mélanges

Mélanges

Numéro CAS	% [poids]	Nom
7439-89-6	25	fer
72244-98-5	24	α-Hydro-ω-hydroxypoly[oxy(méthyléthylène)], éther (4:1) avec le 2,2-bis(hydroxyméthyl)propane-1,3-diol, éther 2-hydroxy-3-mercaptopropylique
90-72-2*	4.5	2,4,6-tris[(dimethylamino)methyl]phenol
1333-86-4	0.5	C.I. PIGMENT BLACK 6
71074-89-0*	0.2	bis[(dimethylamino)methyl]phenol
14807-96-6*	38	Talc
65997-17-3	19	Verre-aux-oxydes,-produits-chimiques

SECTION 4 Premiers secours

Description des premiers secours

Contact avec les yeux	Si ce produit entre en contact avec les yeux : ▸ Maintenir immédiatement les yeux ouverts et rincer de manière continue avec de l'eau claire. ▸ S'assurer d une irrigation complète des yeux en gardant les paupières écartées et éloignées du centre des yeux et aussi en soulevant occasionnellement les paupières du haut et du bas. ▸ Si la douleur persiste ou réapparaît, rechercher un avis médical. ▸ En cas de blessures aux yeux, les lentilles de contact ne doivent être retirées que par une personne formée.
Contact avec la peau	Si le produit entre en contact avec la peau: ▸ Retirer immédiatement tous les vêtements contaminés, chaussures incluses. ▸ Laver les zones affectées à grand eau (et avec du savon si disponible). ▸ Rechercher un avis médical en cas d'irritation.
Inhalation	▸ En cas d'inhalation de fumées ou d'ingestion de produits de combustion : Déplacez-vous vers un endroit aéré.

Continued...

	▸ En général, d'autres mesures ne sont pas nécessaires.
Ingestion	▸ Donnez un verre d'eau immédiatement. ▸ Les premiers soins ne sont généralement pas nécessaires. En cas de doute, contactez un centre anti-poisons ou un médecin.

Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires

Traiter symptomatiquement.

SECTION 5 Mesures de lutte contre l'incendie

Moyens d'extinction

- Les incendies de poussières de métaux nécessitent d'être réduit avec du sable, des poudres sèches inertes.
- NE PAS UTILISER D'EAU, de CO2 ni de MOUSSE.
- Utiliser du sable SEC, de la poudre de graphite, des extincteurs à base de chlorure de sodium sec, G-1 ou L-X pour amoindrir les feux.

NE PAS utiliser d'agents d'extinction de feux halogénés.

Dangers particuliers résultant de la substance ou du mélange

Incompatibilité au feu	Réagit violemment avec les acides en produisant du gaz hydrogène (H2) inflammable / explosif. Évitez la contamination avec des agents oxydants, c'est-à-dire des nitrates, des acides oxydants, des agents de blanchiment au chlore, du chlore de piscine, etc., car une inflammation peut en résulter

Équipement de protection spécial et précautions particulières pour les pompiers

Lutte Incendie	▸ Appelez les pompiers et indiquez-leur le lieu et la nature du risque. ▸ Mettez un appareil respiratoire et des gants de protection conçus pour lutter contre le feu. ▸ Empêcher, par tous les moyens disponibles, que les déversements ne pénètrent dans les égouts ou les cours d'eau.
Risque D'Incendie/Explosion	▸ Les poudres métalliques, bien que généralement considérées comme non-combustible, peuvent brûler quand le métal est finement divisé et l'apport en énergie important. ▸ Peut réagir explosivement à l'eau. ▸ Peut être allumé par friction, chaleur, étincelles ou flamme. Combustible : brûlera si allumé. Les produits de combustion comprennent: le monoxyde de carbone (CO) dioxyde de carbone (CO2) oxydes d'azote (NOx) oxydes de soufre (SOx) oxydes de métal d'autres produits de pyrolyse typiques de la combustion des matières organiques. Peut émettre des fumées corrosives.

SECTION 6 Mesures à prendre en cas de dispersion accidentelle

Précautions individuelles, équipement de protection et procédures d'urgence

Voir l'article 8

Précautions pour la protection de l'environnement

Voir section 12

Méthodes et matériel de confinement et de nettoyage

Eclaboussures Mineures	▸ Nettoyer les éclaboussures immédiatement. ▸ Eviter les contacts avec les yeux et la peau. ▸ Porter des gants imperméables et des lunettes de sécurité.
Eclaboussures Majeures	Risque faible. ▸ Vider le lieu de son personnel. ▸ Alerter les pompiers et leurs indiquer l endroit et la nature du risque.

Le conseil sur l'équipement de protection individuel est contenu dans la rubrique 8 de la FDS.

SECTION 7 Manipulation et stockage

Précautions à prendre pour une manipulation sans danger

Manipulation Sure	▸ Eviter tout contact personnel, inhalation incluse. ▸ Porter des vêtements de protection en cas de risques d'exposition. ▸ Utiliser dans un lieu bien ventilé.
Autres Données	▸ Stockez-le dans son récipient d'origine. ▸ Maintenez les récipients bien scellés. ▸ Stockez-le dans un endroit frais, sec et bien aéré.

Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités

Container adapté	Vérifier que tous les containers sont clairement étiquetés et sans fuite.

Continued...

Incompatibilite de Stockage	▸ **AVERTISSEMENT**: éviter ou contrôler la réaction avec les peroxydes. Tous les peroxydes de métaux de transition doivent être considérés comme potentiellement explosifs. Par exemple, des complexes de métaux de transition d'hydroperoxydes d'alkyle peuvent se décomposer de manière explosive. Plusieurs métaux peuvent devenir incandescents, réagir violemment, s'allumer ou réagir explosivement après l'addition d'acide nitrique concentré. Réagit lentement à l'eau. **ATTENTION:** une contamination par de l'humidité libèrera du gaz hydrogène explosif, provoquant une augmentation de la pression interne des containers. Réagit violemment à la soude caustique, aux autres alkyles - générant de la chaleur et du gaz explosif hydrogène. Si l'alkyl est sec, la chaleur générée peut enflammer l'hydrogène - si l'alkyl est en solution, il peut provoquer un éruption violente de mousse. ▸ Certains métaux peuvent réagir de manière exothermique avec des acides oxydants pour former des gaz toxiques. ▸ Il est connu que les métaux très réactifs réagissent avec les hydrocarbures halogénés, formant quelquefois des composés explosifs (par exemple, le cuivre se dissout lorsqu'il est chauffé dans du tétrachlorure de carbone). Les métaux à l'état de poudre très fine développent une pyrophoricité lorsqu'une surface spécifique critique est dépassée ; ceci est attribué à la chaleur élevée de la formation d'oxyde lors de l'exposition à l'air. Une manipulation sûre est possible dans des concentrations relativement faibles d'oxygène dans un gaz inerte. Plusieurs métaux pyrophoriques, stockés dans des bouteilles en verre, se sont enflammés lorsque le récipient a été brisé lors d'un choc. ▸ De nombreux métaux, sous leur forme d'élément, réagissent de manière exothermique avec des composés qui possèdent des atomes d'hydrogène actifs, tels que les acides ou l'eau, afin de former de l'hydrogène inflammable et des produits caustiques. ▸ Les métaux élémentaires peuvent réagir avec des composés azo/diazo pour former des produits explosifs. ▸ Certains métaux élémentaires forment des produits explosifs en présence d'hydrocarbures halogénés.

SECTION 8 Contrôles de l'exposition/protection individuelle

Paramètres de contrôle

Valeurs limites d'exposition professionnelle (VLEP)

DONNEES SUR LES INGREDIENTS

Source	Composant	Nom du produit	VME	STEL	pic	Notes
Canada - Saskatchewan sur la santé et la sécurité au travail - des limites de contamination	Talc	Talc, (respirable fraction++)	2 mg/m3	Pas Disponible	Pas Disponible	Pas Disponible
Canada - Manitoba Limites d'exposition professionnelle	Talc	Pas Disponible	2 mg/m3	Pas Disponible	Pas Disponible	TLV® Basis: Pulm fibrosis; pulm func
Canada - Manitoba Limites d'exposition professionnelle	Talc	Pas Disponible	Pas Disponible	Pas Disponible	Pas Disponible	TLV® Basis: Use Asbestos TLV®
Canada - Île-du-Prince-Édouard Limites d'exposition professionnelle	Talc	Talc - Containing no asbestos fibers	2 mg/m3	Pas Disponible	Pas Disponible	TLV® Basis: Pulm fibrosis; pulm func
Canada - Île-du-Prince-Édouard Limites d'exposition professionnelle	Talc	Talc - Containing asbestos fibers	Pas Disponible	Pas Disponible	Pas Disponible	TLV® Basis: Use Asbestos TLV®
Canada - Colombie-Britannique Limites D'Exposition Professionnelle	Talc	Talc - Containing asbestos fibres	0.1 f/cc	Pas Disponible	Pas Disponible	(K) - should not exceed 2 mg/m3 respirable particulate.
Canada - Colombie-Britannique Limites D'Exposition Professionnelle	Talc	Talc - Containing no asbestos fibres, Respirable	2 mg/m3	Pas Disponible	Pas Disponible	(E) - the value is for particulate matter containing no asbestos and less than 1% crystalline silica.
Canada - Limites d'exposition professionnelle en Ontario	Talc	Talc, containing no asbestos	2 f/cc	Pas Disponible	Pas Disponible	(K) Should not exceed 2 mg/m3 respirable particulate mass.
Canada - Limites d'exposition professionnelle en Ontario	Talc	Talc, containing no asbestos (Respirable fraction)	2 mg/m3	Pas Disponible	Pas Disponible	(R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency. (E) The value is for particulate matter containing no asbestos and < 1 per cent crystalline silica.
Canada - Nouvelle-Écosse Limites d'exposition professionnelle	Talc	Soapstone	6 mg/m3	Pas Disponible	Pas Disponible	TLV Basis: lower respiratory tract irritation. Particulate matter containing no asbestos and < 1% crystalline silica.
Canada - Nouvelle-Écosse Limites d'exposition professionnelle	Talc	Talc - Containing asbestos fibers	Pas Disponible	Pas Disponible	2 mg/m3	Use asbestos TLV, not to exceed stated ceiling. TLV Basis/Critical Effect(s): asbestosis; cancer
Canada - Nouvelle-Écosse Limites d'exposition professionnelle	Talc	Soapstone	3 mg/m3	Pas Disponible	Pas Disponible	TLV Basis: lower respiratory tract irritation. Particulate matter containing no asbestos and < 1% crystalline silica.
Canada - Nouvelle-Écosse Limites d'exposition professionnelle	Talc	Talc - Containing no asbestos fibers	2 mg/m3	Pas Disponible	Pas Disponible	TLV Basis: lower respiratory tract irritation
Canada - Limites d'exposition professionelle sur les Territoires du Nord-Ouest	Talc	Talc (fraction respirable)	2 mg/m3	Pas Disponible	Pas Disponible	Pas Disponible
Canada - Limites d'exposition professionnelle de l'Alberta	Talc	Soapstone: Total (no asbestos and	6 mg/m3	Pas Disponible	Pas Disponible	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual

Continued...

Source	Composant	Nom du produit	VME	STEL	pic	Notes
		crystalline silica)				schedules is not required.
Canada - Limites d'exposition professionnelle de l'Alberta	Talc	Soapstone: Respirable	3 mg/m3	Pas Disponible	Pas Disponible	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Limites d'exposition professionnelle de l'Alberta	Talc	Talc: Respirable particulate containing no asbestos fibres	2 mg/m3	Pas Disponible	Pas Disponible	Pas Disponible
Canada - Valeurs d'exposition admissibles aux contaminants de l'air au Quebec	Talc	Talc (fibreux) (note 4)	1 f/cc	Pas Disponible	Pas Disponible	Note 4: Valeurs d'exposition admissibles en nombre de fibres respirables par cm3. C1: un effet cancérogène démontré chez l'humain EM: une substance dont l'exposition doit être réduite au minimum
Canada - Valeurs d'exposition admissibles aux contaminants de l'air au Quebec	Talc	Talc (non-fibreux) - la poussière respirable	2 mg/m3	Pas Disponible	Pas Disponible	Note 1: La norme correspond à la poussière ne contenant pas d'amiante et dont le pourcentage de silice cristalline est inférieur à 1%.
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	Verre-aux-oxydes,-produits-chimiques	Mineral wool	Pas Disponible	Pas Disponible	Pas Disponible	(See Table 11)
Canada - Saskatchewan sur la santé et la sécurité au travail - des limites de contamination	Verre-aux-oxydes,-produits-chimiques	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Inhalable fraction++	10 mg/m3	20 mg/m3	Pas Disponible	Pas Disponible
Canada - Saskatchewan sur la santé et la sécurité au travail - des limites de contamination	Verre-aux-oxydes,-produits-chimiques	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Respirable fraction++	3 mg/m3	6 mg/m3	Pas Disponible	Pas Disponible
Canada - Colombie-Britannique Limites D'Exposition Professionnelle	Verre-aux-oxydes,-produits-chimiques	Particles (Insoluble or Poorly Soluble) Not Otherwise Classified (PNOC)	10 mg/m3	Pas Disponible	Pas Disponible	(N) - the 8-hour TWA listed in the Table is for the total dust. The substance also has an 8-hour TWA of 3 mg/m 3 for the respirable fraction.
Canada - Limites d'exposition professionnelle en Ontario	Verre-aux-oxydes,-produits-chimiques	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Inhalable fraction)	10 mg/m3	Pas Disponible	Pas Disponible	(I) Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency.
Canada - Limites d'exposition professionnelle en Ontario	Verre-aux-oxydes,-produits-chimiques	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Respirable fraction)	3 mg/m3	Pas Disponible	Pas Disponible	(R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency.
Canada - Nouvelle-Écosse Limites d'exposition professionnelle	Verre-aux-oxydes,-produits-chimiques	Particles (Insoluble or Poorly Soluble) [NOS] Inhalable particles	10 mg/m3	Pas Disponible	Pas Disponible	See Appendix B current TLV/BEI Book
Canada - Nouvelle-Écosse Limites d'exposition professionnelle	Verre-aux-oxydes,-produits-chimiques	Particles (Insoluble or Poorly Soluble) [NOS] Respirable particles	3 mg/m3	Pas Disponible	Pas Disponible	See Appendix B current TLV/BEI Book
Canada - Limites d'exposition professionnelle sur les Territoires du Nord-Ouest	Verre-aux-oxydes,-produits-chimiques	Particules (insolubles ou peu solubles) non spécifiées autrement : Fraction respirable	3 mg/m3	6 mg/m3	Pas Disponible	Pas Disponible
Canada - Limites d'exposition professionnelle de l'Alberta	Verre-aux-oxydes,-produits-chimiques	Particulate Not Otherwise Regulated: Total	10 mg/m3	Pas Disponible	Pas Disponible	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Limites d'exposition professionnelle de l'Alberta	Verre-aux-oxydes,-produits-chimiques	Particulate Not Otherwise Regulated: Respirable	3 mg/m3	Pas Disponible	Pas Disponible	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.

Continued...

Source	Composant	Nom du produit	VME	STEL	pic	Notes
Canada - Valeurs d'exposition admissibles aux contaminants de l'air au Quebec	Verre-aux-oxydes,-produits-chimiques	Poussières non-classifiées autrement (PNCA) - la poussière totale	10 mg/m3	Pas Disponible	Pas Disponible	Note 1: La norme correspond à la poussière ne contenant pas d'amiante et dont le pourcentage de silice cristalline est inférieur à 1%.
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	C.I. PIGMENT BLACK 6	Carbon black	3.5 mg/m3	7 mg/m3	Pas Disponible	Pas Disponible
Canada - Saskatchewan sur la santé et la sécurité au travail - des limites de contamination	C.I. PIGMENT BLACK 6	Carbon black	3.5 mg/m3	7 mg/m3	Pas Disponible	Pas Disponible
Canada - Manitoba Limites d'exposition professionnelle	C.I. PIGMENT BLACK 6	Pas Disponible	3 mg/m3	Pas Disponible	Pas Disponible	TLV® Basis: Bronchitis
Canada - Île-du-Prince-Édouard Limites d'exposition professionnelle	C.I. PIGMENT BLACK 6	Carbon black	3 mg/m3	Pas Disponible	Pas Disponible	TLV® Basis: Bronchitis
Canada - Colombie-Britannique Limites D'Exposition Professionnelle	C.I. PIGMENT BLACK 6	Carbon black, Inhalable	3 mg/m3	Pas Disponible	Pas Disponible	Pas Disponible
Canada - Limites d'exposition professionnelle en Ontario	C.I. PIGMENT BLACK 6	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Inhalable fraction)	10 mg/m3	Pas Disponible	Pas Disponible	(I) Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency.
Canada - Limites d'exposition professionnelle en Ontario	C.I. PIGMENT BLACK 6	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Respirable fraction)	3 mg/m3	Pas Disponible	Pas Disponible	(R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency.
Canada - Nouvelle-Écosse Limites d'exposition professionnelle	C.I. PIGMENT BLACK 6	Carbon black	3.5 mg/m3	Pas Disponible	Pas Disponible	Pas Disponible
Canada - Limites d'exposition professionnelle sur les Territoires du Nord-Ouest	C.I. PIGMENT BLACK 6	Noir de carbone	3.5 mg/m3	7 mg/m3	Pas Disponible	Pas Disponible
Canada - Limites d'exposition professionnelle de l'Alberta	C.I. PIGMENT BLACK 6	Carbon black	3.5 mg/m3	Pas Disponible	Pas Disponible	Pas Disponible
Canada - Valeurs d'exposition admissibles aux contaminants de l'air au Quebec	C.I. PIGMENT BLACK 6	Noir de carbone - la poussière inhalable	3 mg/m3	Pas Disponible	Pas Disponible	C3: un effet cancérogène démontré chez l'animal
Canada - Saskatchewan sur la santé et la sécurité au travail - des limites de contamination	fer	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Inhalable fraction++	10 mg/m3	20 mg/m3	Pas Disponible	Pas Disponible
Canada - Saskatchewan sur la santé et la sécurité au travail - des limites de contamination	fer	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Respirable fraction++	3 mg/m3	6 mg/m3	Pas Disponible	Pas Disponible
Canada - Limites d'exposition professionnelle en Ontario	fer	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Inhalable fraction)	10 mg/m3	Pas Disponible	Pas Disponible	(I) Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency.
Canada - Limites d'exposition professionnelle en Ontario	fer	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Respirable fraction)	3 mg/m3	Pas Disponible	Pas Disponible	(R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency.
Canada - Nouvelle-Écosse Limites d'exposition professionnelle	fer	Particles (Insoluble or Poorly Soluble)	3 mg/m3	Pas Disponible	Pas Disponible	See Appendix B current TLV/BEI Book

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Source	Composant	Nom du produit	VME	STEL	pic	Notes
		[NOS] Respirable particles				
Canada - Nouvelle-Écosse Limites d'exposition professionnelle	fer	Particles (Insoluble or Poorly Soluble) [NOS] Inhalable particles	10 mg/m3	Pas Disponible	Pas Disponible	See Appendix B current TLV/BEI Book
Canada - Limites d'exposition professionnelle de l'Alberta	fer	Particulate Not Otherwise Regulated: Total	10 mg/m3	Pas Disponible	Pas Disponible	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Limites d'exposition professionnelle de l'Alberta	fer	Particulate Not Otherwise Regulated: Respirable	3 mg/m3	Pas Disponible	Pas Disponible	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Valeurs d'exposition admissibles aux contaminants de l'air au Quebec	fer	Poussières non-classifiées autrement (PNCA) - la poussière totale	10 mg/m3	Pas Disponible	Pas Disponible	Note 1: La norme correspond à la poussière ne contenant pas d'amiante et dont le pourcentage de silice cristalline est inférieur à 1%.

Limites d'urgence

Composant	TEEL-1	TEEL-2	TEEL-3
Verre-aux-oxydes,-produits-chimiques	15 mg/m3	170 mg/m3	990 mg/m3
2,4,6-tris[(dimethylamino)methyl]phenol	6.5 mg/m3	72 mg/m3	430 mg/m3
C.I. PIGMENT BLACK 6	9 mg/m3	99 mg/m3	590 mg/m3
fer	3.2 mg/m3	35 mg/m3	150 mg/m3

Composant	IDLH originale	IDLH révisé
Talc	1,000 mg/m3	Pas Disponible
α-Hydro-ω-hydroxypoly[oxy(méthyléthylène)], éther (4:1) avec le 2,2-bis(hydroxyméthyl)propane-1,3-diol, éther 2-hydroxy-3-mercaptopropylique	Pas Disponible	Pas Disponible
Verre-aux-oxydes,-produits-chimiques	Pas Disponible	Pas Disponible
2,4,6-tris[(dimethylamino)methyl]phenol	Pas Disponible	Pas Disponible
C.I. PIGMENT BLACK 6	1,750 mg/m3	Pas Disponible
bis[(dimethylamino)methyl]phenol	Pas Disponible	Pas Disponible
fer	Pas Disponible	Pas Disponible

Banding d'exposition professionnelle

Composant	Note de la bande d'exposition professionnelle	Limite de bande d'exposition professionnelle
α-Hydro-ω-hydroxypoly[oxy(méthyléthylène)], éther (4:1) avec le 2,2-bis(hydroxyméthyl)propane-1,3-diol, éther 2-hydroxy-3-mercaptopropylique	D	> 0.1 to ≤ 1 ppm
2,4,6-tris[(dimethylamino)methyl]phenol	E	≤ 0.1 ppm
Notes:	***La classification par la bande d'exposition professionnelle est un processus d'attribution aux produits chimiques des catégories spécifiques ou bandes en fonction de la puissance du produit et des conséquence négatives sur la santé associées à l'exposition. Le résultat de ce processus est une bande d'exposition professionnelle (BEP) correspondant à une gamme de concentrations d'exposition qui sont attendues pour protéger la santé des travailleurs.***	

Contrôles de l'exposition

Contrôles techniques appropriés

Les poussières de métal doivent être collectées à la source de leur génération car elles sont potentiellement explosives.
- Les aspirateurs, conçus anti-incendie, devraient être utilisés pour minimiser les accumulations de poussière.
- L'aspersion de métal ou le décapage devraient, si possible, être réalisés dans des pièces séparées.

Mesures de protection individuelle, telles que les équipements de protection individuelle

Protection des yeux/du visage.

- Lunettes de sécurité avec protections latérales
- Lunettes chimiques. [AS/NZS 1337.1, EN166 ou équivalent national]
- Les lentilles de contact peuvent présenter un danger particulier; les lentilles de contact souples peuvent absorber et concentrer les irritants. Un document de politique écrit, décrivant le port de lentilles ou les restrictions d'utilisation, doit être créé pour chaque lieu de

Continued...

	travail ou tâche.
Protection de la peau	Voir protection Main ci-dessous
Protection des mains / pieds	Porter des gants de protection contre les produits chimiques, par exemple en PVC. Porter des chaussures de sécurité ou des bottes en plastique. **NOTE:** Le produit peut provoquer une sensibilisation de la peau chez les individus prédisposés. Une attention doit être prise, quand la personne retire ses gants de protection et ses équipements de protection, afin d'éviter un possible contact avec la peau.
Protection corporelle	Voir Autre protection ci-dessous
Autres protections	▸ Tenue complète. ▸ Tablier en P.V.C. ▸ Crème protectrice.

Protection respiratoire

Filtre de type A-P de capacité suffisante (AS / NZS 1716 et 1715, EN 143:2000 et 149:2001, ANSI Z88 ou équivalent national)

Les masques à cartouches ne doivent jamais être utilisés pour entrer en urgence dans une zone ou entrer dans des zones à concentration inconnue de vapeur ou de teneur en oxygène. Le porteur doit être averti de quitter immédiatement la zone contaminée en cas de détection d'une odeur à travers le respirateur. L'odeur peut indiquer que le masque ne fonctionne pas convenablement, que la concentration en vapeur est trop élevée ou que le masque n'est pas convenablement ajusté. En raison de ces contraintes, seule une utilisation restreinte des maques à cartouches est considérée comme appropriée.

SECTION 9 Propriétés physiques et chimiques

Informations sur les propriétés physiques et chimiques essentielles

Aspect	Grey Putty

État Physique	Colle non Slump	**Densité relative (l'eau = 1)**	Pas Disponible
Odeur	Pas Disponible	**Coefficient de partition n-octanol / eau**	Pas Disponible
Seuil pour les odeurs	Pas Disponible	**Température d'auto-allumage (°C)**	Pas Disponible
pH (comme fourni)	Pas Disponible	**Température de décomposition**	Pas Disponible
Point de fusion / point de congélation (° C)	Pas Disponible	**Viscosité (cSt)**	Pas Disponible
Point d'ébullition initial et plage d'ébullition (° C)	Pas Disponible	**Poids Moléculaire (g/mol)**	Pas Disponible
Point d'éclair (°C)	Pas Disponible		
Taux d'évaporation	Pas Disponible	**Propriétés explosives**	Pas Disponible
Inflammabilité	Pas Disponible	**Propriétés oxydantes**	Pas Disponible
Limite supérieure d'explosivité	Pas Disponible	**La tension de surface (dyn/cm or mN/m)**	Pas Disponible
Limite inférieure d'explosivité (LIE)	Pas Disponible	**Composé volatile (%vol)**	Pas Disponible
Pression de vapeur (kPa)	Pas Disponible	**Groupe du Gaz**	Pas Disponible
Hydrosolubilité	Non miscible	**pH en solution (1%)**	Pas Disponible
Densité de vapeur (Air = 1)	Pas Disponible	**Composés organiques volatils g/L**	Pas Disponible

SECTION 10 Stabilité et réactivité

Réactivité	Voir section 7
Stabilité chimique	▸ Présence d'une source de chaleur et d'ignition Le produit est considéré comme stable et une polymérisation dangereuse ne se produira pas
Possibilité de réactions dangereuses	Voir section 7
Conditions à éviter	Voir section 7
Matières incompatibles	Voir section 7
Produits de décomposition dangereux	Voir Section 5

SECTION 11 Informations toxicologiques

Informations sur les effets toxicologiques

Continued...

Inhalé	Le produit n'est pas censé produire des effets négatifs sur la santé ni des irritations du système respiratoire (tels que classifiées par les directives CE se basant sur des modèles animaux). Néanmoins, la pratique d'une bonne hygiène requiert de conserver les expositions à un minimum et que des mesures de contrôle adaptées soient mises en place lors d'une pratique professionnel. Habituellement pas un risque en raison de la nature non-volatile de produit
Ingestion	Le produit **N'A PAS ETE** classifié sous les directives CE ou sous un autre système de classification comme 'nocif par ingestion'. Ceci est du au manque de preuves corroborantes chez les animaux et les humains. Le produit peut néanmoins être dommageable pour la santé de l'individu, suivant une ingestion, particulièrement si des organes précédemment endommagés (i.e. foie, reins) sont présents.
Contact avec la peau	Ce produit à la capacité de provoquer une inflammation au contact de la peau chez certaines personnes. Le produit peut accentuer toute condition dermite pré-existante. Un contact de la peau n'est pas connu pour avoir des effets nocifs sur la santé (classifié comme tel par la directive CE); le produit peut néanmoins produire des dommages sur la santé après une entrée par des blessures, des lésions ou des abrasions. Une irritation et des réactions de la peau sont possibles avec des peaux sensibles Le coupures ouvertes, une peau irritée ou abrasive ne devrait pas être exposé à ce produit. Une entrée dans le système sanguin, via par exemple, des coupures, des abrasions ou des lésions, peut produire des blessures systémiques avec des effets nocifs. Examiner les peau avant l'utilisation du produit et s'assurer que les dommages externes sont correctement protégés.
Yeux	Le produit à la capacité de provoquer une irritation des yeux et des dommages chez certaines personnes.
Chronique	Selon des expériences, le contact de la peau avec le matériel peut soit induire une réaction de sensibilisation chez un certain nombre d'individus et/ou engendrer une réaction positive sur les animaux de laboratoire.

SteelStik™ Epoxy Putty

TOXICITÉ	IRRITATION
Pas Disponible	Pas Disponible

Talc

TOXICITÉ	IRRITATION
Dermique (rat) LD50: >2000 mg/kg[1]	Peau: aucun effet nocif observé (non irritant)[1]
Inhalation(Rat) LC50; >2.1 mg/l4h[1]	Yeux: aucun effet nocif observé (non irritant)[1]
Oral(Rat) LD50; >5000 mg/kg[1]	

α-Hydro-ω-hydroxypoly[oxy(méthyléthylène)], éther (4:1) avec le 2,2-bis(hydroxyméthyl)propane-1,3-diol, éther 2-hydroxy-3-mercaptopropylique

TOXICITÉ	IRRITATION
Dermiquel (lapin) LD50: >10200 mg/kg[2]	Pas Disponible
Oral(Rat) LD50; 2600 mg/kg[2]	

Verre-aux-oxydes,-produits-chimiques

TOXICITÉ	IRRITATION
Pas Disponible	Pas Disponible

2,4,6-tris[(dimethylamino)methyl]phenol

TOXICITÉ	IRRITATION
Dermiquel (lapin) LD50: 1280 mg/kg[2]	Eye (rabbit): 0.05 mg/24h - SEVERE
Inhalation(Rat) LC50; >0.5 mg/l/1 hr.[2]	Peau: aucun effet nocif observé (non irritant)[1]
Oral(Rat) LD50; 1200 mg/kg[2]	Skin (rabbit): 2 mg/24h - SEVERE
Oral(Rat) LD50; 2500 mg/kg *[2]	Yeux: effet nocif observé (dommages irréversibles)[1]

C.I. PIGMENT BLACK 6

TOXICITÉ	IRRITATION
Dermiquel (lapin) LD50: >2000 mg/kg[1]	Peau: aucun effet nocif observé (non irritant)[1]
Oral(Rat) LD50; >2000 mg/kg[1]	Yeux: aucun effet nocif observé (non irritant)[1]

bis[(dimethylamino)methyl]phenol

TOXICITÉ	IRRITATION
Pas Disponible	Pas Disponible

fer

TOXICITÉ	IRRITATION
Oral(Rat) LD50; 98600 mg/kg[2]	Pas Disponible

Légende:	***1 Valeur obtenue substances Europe de l'ECHA enregistrés de -.. Toxicité aiguë 2 Valeur obtenue à partir de la fiche signalétique du fabricant, sauf les données spécifiées soient extraites du RTECS - Registre des effets toxiques des substances chimiques***

2,4,6-tris[(dimethylamino)methyl]phenol	Le produit peut produire une importante irritation des yeux provoquant une inflammation importante. Une exposition prolongée ou répétée aux irritants peut produire des conjonctivites. Le produit peut causer une irritation importante de la peau après une exposition prolongée ou répétée et peut produire au contact de la peau des rougeurs, des tuméfactions, une production de vésicules, la formation d'écailles et un épaississement de la peau.

Continued...

	Des symptômes de type asthmatique peuvent persister pendant des mois, voire des années, après la fin de l'exposition à la substance. Cela peut être dû à un état non allergique connu sous le nom de syndrome de dysfonctionnement réactif des voies aériennes (syndrome de Brooks) qui peut survenir à la suite d'une exposition à des niveaux élevés de composé très irritant. Les principaux critères de diagnostic du syndrome de Brooks comprennent l'absence de maladie respiratoire antérieure, chez un individu non atopique, avec apparition soudaine de symptômes persistants de type asthmatique dans les minutes ou les heures suivant une exposition documentée à l'irritant.
C.I. PIGMENT BLACK 6	AVERTISSEMENT : Cette substance a été classée par l'IARC comme appartenant au Groupe 2B : Possible cancérigène pour les humains.
SteelStik™ Epoxy Putty & A-HYDRO-Ω-HYDROXYPOLY[OXY(MÉTHYLÉTHYLÈNE)], ÉTHER (4:1) AVEC LE 2,2-BIS(HYDROXYMÉTHYL)PROPANE-1,3-DIOL, ÉTHER 2-HYDROXY-3-MERCAPTOPROPYLIQUE	Les informations suivantes concernent les allergènes de contact en tant que groupe et ne sont pas forcément spécifiques à ce produit. Les allergies de contact se manifestent rapidement par un eczéma de contact, plus rarement par de l'urticaire ou un œdème de Quincke. La pathogenèse de l'eczéma de contact implique une réaction immunitaire à médiation cellulaire (lymphocytes T) de type retardé.
A-HYDRO-Ω-HYDROXYPOLY[OXY(MÉTHYLÉTHYLÈNE)], ÉTHER (4:1) AVEC LE 2,2-BIS(HYDROXYMÉTHYL)PROPANE-1,3-DIOL, ÉTHER 2-HYDROXY-3-MERCAPTOPROPYLIQUE & VERRE-AUX-OXYDES,-PRODUITS-CHIMIQUES & 2,4,6-tris[(dimethylamino)methyl]phenol & C.I. PIGMENT BLACK 6	Aucune donnée toxicologique aiguë significative n'a été identifiée lors de la recherche bibliographique.

toxicité aiguë	✗	**Cancérogénicité**	✗
Irritation / corrosion	✓	**reproducteur**	✗
Lésions oculaires graves / irritation	✓	**STOT - exposition unique**	✗
Sensibilisation respiratoire ou cutanée	✓	**STOT - exposition répétée**	✗
Mutagénéïté	✗	**risque d'aspiration**	✗

Légende: ✗ ***– Les données pas disponibles ou ne remplit pas les critères de classification***
✓ ***– Données nécessaires à la classification disponible***

SECTION 12 Informations écologiques

Toxicité

SteelStik™ Epoxy Putty

ENDPOINT	Durée de l'essai (heures)	espèce	Valeur	source
Pas Disponible	Pas Disponible	Pas Disponible	Pas Disponible	Pas Disponible

Talc

ENDPOINT	Durée de l'essai (heures)	espèce	Valeur	source
LC50	96h	Poisson	89581.016mg/l	2
NOEC(ECx)	720h	Les algues ou d'autres plantes aquatiques	918.089mg/l	2
EC50	96h	Les algues ou d'autres plantes aquatiques	7202.7mg/l	2

α-Hydro-ω-hydroxypoly[oxy(méthyléthylène)], éther (4:1) avec le 2,2-bis(hydroxyméthyl)propane-1,3-diol, éther 2-hydroxy-3-mercaptopropylique

ENDPOINT	Durée de l'essai (heures)	espèce	Valeur	source
EC50(ECx)	48h	crustacés	12mg/l	Pas Disponible
EC50	48h	crustacés	12mg/l	Pas Disponible
LC50	96h	Poisson	87mg/l	Pas Disponible

Verre-aux-oxydes,-produits-chimiques

ENDPOINT	Durée de l'essai (heures)	espèce	Valeur	source
LC50	96h	Poisson	>1000mg/l	2
NOEC(ECx)	72h	crustacés	>=1000mg/l	2
EC50	72h	Les algues ou d'autres plantes aquatiques	>1000mg/l	2

2,4,6-tris[(dimethylamino)methyl]phenol

ENDPOINT	Durée de l'essai (heures)	espèce	Valeur	source
EC50(ECx)	24h	crustacés	280mg/l	Pas Disponible
EC50	72h	Les algues ou d'autres plantes aquatiques	2.8mg/l	2
EC50	48h	crustacés	>100mg/l	2
LC50	96h	Poisson	1000mg/l	Pas Disponible

C.I. PIGMENT BLACK 6

ENDPOINT	Durée de l'essai (heures)	espèce	Valeur	source
LC50	96h	Poisson	>100mg/l	2
EC50	72h	Les algues ou d'autres plantes aquatiques	>0.2mg/l	2

Continued...

	EC50	48h	crustacés	33.076-41.968mg/l	4
	NOEC(ECx)	24h	crustacés	3200mg/l	1

bis[(dimethylamino)methyl]phenol

ENDPOINT	Durée de l'essai (heures)	espèce	Valeur	source
Pas Disponible	Pas Disponible	Pas Disponible	Pas Disponible	Pas Disponible

fer

ENDPOINT	Durée de l'essai (heures)	espèce	Valeur	source
NOEC(ECx)	48h	Les algues ou d'autres plantes aquatiques	0.1-4mg/l	4
EC50	72h	Les algues ou d'autres plantes aquatiques	18mg/l	2
EC50	48h	crustacés	>100mg/l	2
LC50	96h	Poisson	0.005-0.008mg/L	4

Légende: ***Extrait de 1. Donnees de toxicite de IUCLID 2. Substances enregistrees par ECHA en Europe - informations ecotoxicologiques - Toxicite aquatique 4. Base de donnees ECOTOX de l'Agence de protection de l'environnement (EPA) des Etats-Unis- Donnees de toxicite aquatique 5. Donnees d'evaluation des risques aquatiques ECETOC 6. NITE (Japon) - Donnees de bioconcentration 7. METI (Japon) - Donnees de bioconcentration***

Persistance et dégradabilité

Composant	Persistance: Eau/Sol	Persistance: l'air
2,4,6-tris[(dimethylamino)methyl]phenol	HAUT	HAUT

Potentiel de bioaccumulation

Composant	Bioaccumulation
2,4,6-tris[(dimethylamino)methyl]phenol	BAS (LogKOW = 0.773)

Mobilité dans le sol

Composant	Mobilité
2,4,6-tris[(dimethylamino)methyl]phenol	BAS (Log KOC = 15130)

SECTION 13 Considérations relatives à l'élimination

Méthodes de traitement des déchets

Elimination du produit / emballage

- Les conteneurs peuvent encore présenter un danger / danger chimique lorsqu'ils sont vides.
- Retourner au fournisseur pour réutilisation / recyclage si possible.

Autrement:

- Si le conteneur ne peut pas être nettoyé suffisamment bien pour garantir qu'il ne reste pas de résidus ou si le conteneur ne peut pas être utilisé pour stocker le même produit, perforer les conteneurs pour éviter leur réutilisation et les enfouir dans une décharge autorisée.
- **NE PAS** permettre à l'eau provenant du lavage ou de l'équipement de pénétrer dans les conduits d'eau.
- Il peut s'avérer nécessaire de collecter toute l'eau de lavage pour un traitement préalable avant l'élimination.
- Dans tous les cas, une élimination dans les égouts peut-être soumise à des lois et réglementations et ces dernières doivent être prises en.
- Recycler autant que possible ou consulter le fabricant pour les options de recyclages.
- Consulter l'Autorité de régulation des décharges pour un traitement.
- Enterrer ou incinérer le résidu dans un lieu approuvé.

SECTION 14 Informations relatives au transport

Etiquettes nécessaires

Polluant marin	aucun

Transport terrestre (TDG): NON REGLEMENTE PAR LE CODE DES TRANSPORTS CONCERNANT LES MARCHANDISES DANGEREUSES

Transport aérien (ICAO-IATA / DGR): NON REGLEMENTE PAR LE CODE DES TRANSPORTS CONCERNANT LES MARCHANDISES DANGEREUSES

Transport maritime (IMDG-Code / GGVSee): NON REGLEMENTE PAR LE CODE DES TRANSPORTS CONCERNANT LES MARCHANDISES DANGEREUSES

14.7.1. Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC

N'est pas applicable

14.7.2. Transport en vrac conformément à l'annexe V et MARPOL Code IMSBC

Nom du produit	Grouper
Talc	Pas Disponible
α-Hydro-ω-hydroxypoly[oxy(méthyléthylène)], éther (4:1)	Pas Disponible

Continued...

Nom du produit	Grouper
avec le 2,2-bis(hydroxyméthyl)propane-1,3-diol, éther 2-hydroxy-3-mercaptopropylique	
Verre-aux-oxydes,-produits-chimiques	Pas Disponible
2,4,6-tris[(dimethylamino)methyl]phenol	Pas Disponible
C.I. PIGMENT BLACK 6	Pas Disponible
bis[(dimethylamino)methyl]phenol	Pas Disponible
fer	Pas Disponible

14.7.3. Transport en vrac conformément aux dispositions du Code IGC

Nom du produit	Type de navire
Talc	Pas Disponible
α-Hydro-ω-hydroxypoly[oxy(méthyléthylène)], éther (4:1) avec le 2,2-bis(hydroxyméthyl)propane-1,3-diol, éther 2-hydroxy-3-mercaptopropylique	Pas Disponible
Verre-aux-oxydes,-produits-chimiques	Pas Disponible
2,4,6-tris[(dimethylamino)methyl]phenol	Pas Disponible
C.I. PIGMENT BLACK 6	Pas Disponible
bis[(dimethylamino)methyl]phenol	Pas Disponible
fer	Pas Disponible

SECTION 15 Informations réglementaires

Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement

Ce produit a été classé conformément aux critères de danger du Règlement sur les produits dangereux et la FDS contient toutes les informations requises par le Règlement sur les produits dangereux.

Talc Est disponible dans les textes réglementaires suivants

Agence Internationale pour la Recherche sur le Cancer (CIRC) - Agents classés par les Monographies du CIRC
Canada Catégorisation des décisions pour toutes les substances de la LIS
Canada Liste Intérieure des Substances (DSL)
Centre International de recherche sur le cancer (CIRC) - Agents classés par les monographies du CIRC - Groupe 2B: Peut-être cancérogène pour l'homme
Centre international de recherche sur le cancer (CIRC) - Agents classifiés par les monographies de CIRC - N'est pas classé comme produit cancérogéne
Liste internationale OMS de la limite proposée d'exposition professionnelle (VLEP) Les valeurs pour les nanomatériaux manufacturés (MNMS)
Projet d'empreinte chimique - Liste des produits chimiques préoccupants
Service d'index toxicologique du Canada - Système d'information sur les matières dangereuses utilisées au travail - SIMDUT SGH

α-Hydro-ω-hydroxypoly[oxy(méthyléthylène)], éther (4:1) avec le 2,2-bis(hydroxyméthyl)propane-1,3-diol, éther 2-hydroxy-3-mercaptopropylique Est disponible dans les textes réglementaires suivants

Canada Catégorisation des décisions pour toutes les substances de la LIS
Canada Liste Intérieure des Substances (DSL)

Verre-aux-oxydes,-produits-chimiques Est disponible dans les textes réglementaires suivants

Canada Catégorisation des décisions pour toutes les substances de la LIS
Canada Liste Intérieure des Substances (DSL)
Liste internationale OMS de la limite proposée d'exposition professionnelle (VLEP) Les valeurs pour les nanomatériaux manufacturés (MNMS)
Projet d'empreinte chimique - Liste des produits chimiques préoccupants

2,4,6-tris[(dimethylamino)methyl]phenol Est disponible dans les textes réglementaires suivants

Canada Catégorisation des décisions pour toutes les substances de la LIS
Canada Liste Intérieure des Substances (DSL)
Service d'index toxicologique du Canada - Système d'information sur les matières dangereuses utilisées au travail - SIMDUT SGH

C.I. PIGMENT BLACK 6 Est disponible dans les textes réglementaires suivants

Agence Internationale pour la Recherche sur le Cancer (CIRC) - Agents classés par les Monographies du CIRC
Canada Catégorisation des décisions pour toutes les substances de la LIS
Canada Liste Intérieure des Substances (DSL)
Centre International de recherche sur le cancer (CIRC) - Agents classés par les monographies du CIRC - Groupe 2B: Peut-être cancérogène pour l'homme
Liste internationale OMS de la limite proposée d'exposition professionnelle (VLEP) Les valeurs pour les nanomatériaux manufacturés (MNMS)
Projet d'empreinte chimique - Liste des produits chimiques préoccupants
Service d'index toxicologique du Canada - Système d'information sur les matières dangereuses utilisées au travail - SIMDUT SGH

bis[(dimethylamino)methyl]phenol Est disponible dans les textes réglementaires suivants

N'est pas applicable

fer Est disponible dans les textes réglementaires suivants

Continued...

Canada Catégorisation des décisions pour toutes les substances de la LIS
Canada Liste Intérieure des Substances (DSL)
Liste internationale OMS de la limite proposée d'exposition professionnelle (VLEP) Les valeurs pour les nanomatériaux manufacturés (MNMS)
Service d'index toxicologique du Canada - Système d'information sur les matières dangereuses utilisées au travail - SIMDUT SGH

Informations Réglementaires Supplémentaires

N'est pas applicable

État de l'inventaire national

Inventaire national	Statut
Australie - AIIC / Australie non-utilisation industrielle	Non (bis[(dimethylamino)methyl]phenol)
Canada - DSL	Oui
Canada - NDSL	Non (Talc; α-Hydro-ω-hydroxypoly[oxy(méthyléthylène)], éther (4:1) avec le 2,2-bis(hydroxyméthyl)propane-1,3-diol, éther 2-hydroxy-3-mercaptopropylique; Verre-aux-oxydes,-produits-chimiques; 2,4,6-tris[(dimethylamino)methyl]phenol; C.I. PIGMENT BLACK 6; bis[(dimethylamino)methyl]phenol; fer)
Chine - IECSC	Oui
Europe - EINEC / ELINCS / NLP	Non (α-Hydro-ω-hydroxypoly[oxy(méthyléthylène)], éther (4:1) avec le 2,2-bis(hydroxyméthyl)propane-1,3-diol, éther 2-hydroxy-3-mercaptopropylique)
Japon - ENCS	Non (Talc; α-Hydro-ω-hydroxypoly[oxy(méthyléthylène)], éther (4:1) avec le 2,2-bis(hydroxyméthyl)propane-1,3-diol, éther 2-hydroxy-3-mercaptopropylique; Verre-aux-oxydes,-produits-chimiques; fer)
Corée - KECI	Non (bis[(dimethylamino)methyl]phenol)
Nouvelle-Zélande - NZIoC	Oui
Philippines - PICCS	Oui
É.-U.A. - TSCA	Oui
Taiwan - TCSI	Oui
Mexique - INSQ	Non (α-Hydro-ω-hydroxypoly[oxy(méthyléthylène)], éther (4:1) avec le 2,2-bis(hydroxyméthyl)propane-1,3-diol, éther 2-hydroxy-3-mercaptopropylique; bis[(dimethylamino)methyl]phenol)
Vietnam - NCI	Oui
Russie - FBEPH	Non (α-Hydro-ω-hydroxypoly[oxy(méthyléthylène)], éther (4:1) avec le 2,2-bis(hydroxyméthyl)propane-1,3-diol, éther 2-hydroxy-3-mercaptopropylique; bis[(dimethylamino)methyl]phenol)
Légende:	***Oui = Tous les ingrédients figurent dans l'inventaire*** ***Non = Un ou plusieurs des ingrédients répertoriés dans le CAS ne figurent pas dans l'inventaire. Ces ingrédients peuvent être exemptés ou devront être enregistrés.***

SECTION 16 Autres informations

date de révision	05/03/2024
date initiale	09/13/2020

Résumé de la version SDS

Version	Date de mise à jour	Sections mises à jour
4.9	05/02/2024	Informations toxicologiques - la santé aiguë (oeil), Informations toxicologiques - la santé aiguë (inhalation), Informations toxicologiques - la santé aiguë (inhalation), Identification des dangers - Classification, Contrôles de l'exposition/protection individuelle - contrôle technique, Informations écologiques - écologique, Mesures de lutte contre l'incendie - Pompier (média d'extinction), Mesures de lutte contre l'incendie - Pompier (incendie / risque d'explosion), Mesures de lutte contre l'incendie - Pompier (incompatibilité incendie), Composition/informations sur les composants - Ingrédients, Stabilité et réactivité - Condition Instabilité, Manipulation et stockage - stockage (incompatibilité de stockage)

autres informations

La classification de la préparation et de ses composants individuels est basée sur des sources officielles et faisant autorité, ainsi que sur un examen indépendant par le comité de classification de Chemwatch en utilisant des références bibliographiques disponibles.
La fiche de données de sécurité (SDS) est un outil de communication des dangers et doit être utilisée pour aider à l'évaluation des risques. De nombreux facteurs déterminent si les dangers signalés représentent des risques sur le lieu de travail ou dans d'autres environnements. Les risques peuvent être déterminés en fonction des scénarios d'exposition.

Alimenté par AuthorITe, de Chemwatch.

end of SDS

SteelStik™ Epoxy Putty

J-B Weld Company LLC

Version No: **5.9**
Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: **05/03/2024**
Print Date: **05/03/2024**
S.GHS.USA.EN

SECTION 1 Identification

Product Identifier

Product name	SteelStik™ Epoxy Putty
Synonyms	8267 (SteelStik™ Epoxy Putty Stick)
Other means of identification	UFI:SRVQ-J0S9-X008-KKMU

Recommended use of the chemical and restrictions on use

Relevant identified uses	Use according to manufacturer's directions.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	**J-B Weld Company LLC**
Address	400 CMH Road TX 75482 United States
Telephone	903-885-7696
Fax	Not Available
Website	WWW.JBWeld.com
Email	info@JBWeld.com

Emergency phone number

Association / Organisation	**InfoTrac**
Emergency telephone numbers	**Transportation Emergencies: 800-535-5053 or (24 hours)**
Other emergency telephone numbers	**Poison Control Centers: Medical Emergencies 800-222-1222 (24 hours)**

SECTION 2 Hazard(s) identification

Classification of the substance or mixture

Classification	Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2A

Label elements

Hazard pictogram(s)	
Signal word	**Warning**

Hazard statement(s)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

Hazard(s) not otherwise classified

Not Applicable

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

Page 1 continued...

P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P264	Wash all exposed external body areas thoroughly after handling.
P272	Contaminated work clothing must not be allowed out of the workplace.

Precautionary statement(s) Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
7439-89-6	25	iron
72244-98-5	24	trimercaptan ether, propoxylated
90-72-2*	4.5	2,4,6-tris[(dimethylamino)methyl]phenol
1333-86-4	0.5	carbon black
71074-89-0*	0.2	bis[(dimethylamino)methyl]phenol
14807-96-6*	38	Talc
65997-17-3	19	glass, oxide

SECTION 4 First-aid measures

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ▸ Wash out immediately with fresh running water. ▸ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▸ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: ▸ Immediately remove all contaminated clothing, including footwear. ▸ Flush skin and hair with running water (and soap if available). ▸ Seek medical attention in event of irritation.
Inhalation	▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▸ Other measures are usually unnecessary.
Ingestion	▸ Immediately give a glass of water. ▸ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Fire-fighting measures

Extinguishing media

Metal dust fires need to be smothered with sand, inert dry powders.
DO NOT USE WATER, CO2 or FOAM.
- Use DRY sand, graphite powder, dry sodium chloride based extinguishers, G-1 or Met L-X to smother fire.
- **DO NOT** use halogenated fire extinguishing agents.

Special hazards arising from the substrate or mixture

Continued...

Fire Incompatibility	▸ Reacts with acids producing flammable / explosive hydrogen (H2) gas ▸ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Special protective equipment and precautions for fire-fighters

Fire Fighting	▸ Alert Fire Department and tell them location and nature of hazard. ▸ Wear breathing apparatus plus protective gloves in the event of a fire.
Fire/Explosion Hazard	▸ **DO NOT** disturb burning dust. Explosion may result if dust is stirred into a cloud, by providing oxygen to a large surface of hot metal. ▸ **DO NOT** use water or foam as generation of explosive hydrogen may result. Combustible. Will burn if ignited. Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) nitrogen oxides (NOx) sulfur oxides (SOx) metal oxides other pyrolysis products typical of burning organic material. May emit corrosive fumes.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	▸ Clean up all spills immediately. ▸ Avoid contact with skin and eyes. ▸ Wear impervious gloves and safety goggles.
Major Spills	Minor hazard. ▸ Clear area of personnel. ▸ Alert Fire Brigade and tell them location and nature of hazard.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	▸ Avoid all personal contact, including inhalation. ▸ Wear protective clothing when risk of exposure occurs. ▸ Use in a well-ventilated area.
Other information	▸ Store in original containers. ▸ Keep containers securely sealed. ▸ Store in a cool, dry, well-ventilated area.

Conditions for safe storage, including any incompatibilities

Suitable container	▸ Metal can or drum ▸ Packaging as recommended by manufacturer. ▸ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	For frits: ▸ Avoid storage with hydrogen fluoride/ hydrofluoric acid, oxygen difluoride, manganese trifluoride, fluorine and other fluorine containing compounds, manganese trioxide, chlorates, chlorine trifluoride, chlorine trioxide, strong alkalis, metal oxides, concentrated orthophosphoric acid or vinyl acetate. ▸ WARNING: Avoid or control reaction with peroxides. All ***transition meta***l peroxides should be considered as potentially explosive. For example transition metal complexes of alkyl hydroperoxides may decompose explosively. ▸ Many metals may incandesce, react violently, ignite or react explosively upon addition of concentrated nitric acid. ▸ Reacts slowly with water. ▸ **CAUTION** contamination with moisture will liberate explosive hydrogen gas, causing pressure build up in sealed containers. ▸ Reacts violently with caustic soda, other alkalies - generating heat, highly flammable hydrogen gas. ▸ If alkali is dry, heat generated may ignite hydrogen - if alkali is in solution may cause violent foaming Metals exhibit varying degrees of activity. Reaction is reduced in the massive form (sheet, rod, or drop), compared with finely divided forms. The less active metals will not burn in air but: ▸ can react exothermically with oxidising acids to form noxious gases. ▸ Finely divided metal powders develop pyrophoricity when a critical specific surface area is exceeded; this is ascribed to high heat of oxide formation on exposure to air. ▸ Safe handling is possible in relatively low concentrations of oxygen in an inert gas. ▸ Several pyrophoric metals, stored in glass bottles have ignited when the container is broken on impact. ▸ Many metals in elemental form react exothermically with compounds having active hydrogen atoms (such as acids and water) to form flammable hydrogen gas and caustic products. ▸ Elemental metals may react with azo/diazo compounds to form explosive products. ▸ Some elemental metals form explosive products with halogenated hydrocarbons.

Continued...

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Talc	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Talc	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Talc (containing asbestos)	Not Available	Not Available	Not Available	Use asbestos limit
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Talc (not containing asbestos)	20 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Soapstone	20 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	Talc	Talc (containing no asbestos and less than 1% quartz) - respirable	2 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	glass, oxide	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	glass, oxide	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	glass, oxide	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	glass, oxide	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	glass, oxide	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D
US OSHA Permissible Exposure Limits (PELs) Table Z-1	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	carbon black	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	carbon black	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Ca; TWA 0.1 mg PAHs/m3 [Carbon black in presence of polycyclic aromatic hydrocarbons (PAHs)] See Appendix A See Appendix C
US OSHA Permissible Exposure Limits (PELs) Table Z-1	iron	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	iron	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	iron	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	iron	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	iron	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
glass, oxide	15 mg/m3	170 mg/m3	990 mg/m3
2,4,6-tris[(dimethylamino)methyl]phenol	6.5 mg/m3	72 mg/m3	430 mg/m3
carbon black	9 mg/m3	99 mg/m3	590 mg/m3
iron	3.2 mg/m3	35 mg/m3	150 mg/m3

Continued...

Ingredient	Original IDLH	Revised IDLH
Talc	1,000 mg/m3	Not Available
trimercaptan ether, propoxylated	Not Available	Not Available
glass, oxide	Not Available	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available	Not Available
carbon black	1,750 mg/m3	Not Available
bis[(dimethylamino)methyl]phenol	Not Available	Not Available
iron	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
trimercaptan ether, propoxylated	D	> 0.1 to ≤ 1 ppm
2,4,6-tris[(dimethylamino)methyl]phenol	E	≤ 0.1 ppm
Notes:	***Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.***	

Exposure controls

Appropriate engineering controls	Metal dusts must be collected at the source of generation as they are potentially explosive. ▸ Avoid ignition sources. ▸ Good housekeeping practices must be maintained.
Individual protection measures, such as personal protective equipment	
Eye and face protection	▸ Safety glasses with side shields. ▸ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] ▸ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.
Skin protection	See Hand protection below
Hands/feet protection	▸ Wear chemical protective gloves, e.g. PVC. ▸ Wear safety footwear or safety gumboots, e.g. Rubber **NOTE:** ▸ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▸ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
Body protection	See Other protection below
Other protection	▸ Overalls. ▸ P.V.C apron. ▸ Barrier cream.

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Grey Putty

Physical state	Non Slump Paste	**Relative density (Water = 1)**	Not Available
Odor	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Available
pH (as supplied)	Not Available	**Decomposition temperature (°C)**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	Not Available

Continued...

Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	Not Available
Flash point (°C)	Not Available		
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not Available	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Available	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	Not Available	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water	Immiscible	**pH as a solution (1%)**	Not Available
Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	▸ Presence of heat source and ignition source Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not normally a hazard due to non-volatile nature of product
Ingestion	The material has **NOT** been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Irritation and skin reactions are possible with sensitive skin Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	This material can cause eye irritation and damage in some persons. Contact with the eye by metal dusts may produce mechanical abrasion or foreign body penetration of the eyeball. Iron particles embedded in the eye may cause discolouration of the cornea and iris, and effects on the pupil such as poor rection to light and accommodation.
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.

SteelStik™ Epoxy Putty	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
Talc	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg[1]	Eye: no adverse effect observed (not irritating)[1]
	Inhalation (Rat) LC50: >2.1 mg/l4h[1]	Skin: no adverse effect observed (not irritating)[1]
	Oral (Rat) LD50: >5000 mg/kg[1]	
trimercaptan ether, propoxylated	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >10200 mg/kg[2]	Not Available

Continued...

	Oral (Rat) LD50: 2600 mg/kg[2]	

glass, oxide

TOXICITY	IRRITATION
Not Available	Not Available

2,4,6-tris[(dimethylamino)methyl]phenol

TOXICITY	IRRITATION
Dermal (rabbit) LD50: 1280 mg/kg[2]	Eye (rabbit): 0.05 mg/24h - SEVERE
Inhalation (Rat) LC50: >0.5 mg/l/1 hr.[2]	Eye: adverse effect observed (irreversible damage)[1]
Oral (Rat) LD50: 1200 mg/kg[2]	Skin (rabbit): 2 mg/24h - SEVERE
Oral (Rat) LD50: 2500 mg/kg *[2]	Skin: adverse effect observed (corrosive)[1]

carbon black

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >2000 mg/kg[1]	Eye: no adverse effect observed (not irritating)[1]
Oral (Rat) LD50: >2000 mg/kg[1]	Skin: no adverse effect observed (not irritating)[1]

bis[(dimethylamino)methyl]phenol

TOXICITY	IRRITATION
Not Available	Not Available

iron

TOXICITY	IRRITATION
Oral (Rat) LD50: 98600 mg/kg[2]	Not Available

Legend:	***1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances***

TRIMERCAPTAN ETHER, PROPOXYLATED	Polyethers (such as ethoxylated surfactants and polyethylene glycols) are highly susceptible to being oxidized in the air. They then form complex mixtures of oxidation products. Animal testing reveals that whole the pure, non-oxidised surfactant is non-sensitizing, many of the oxidation products are sensitisers. The oxidization products also cause irritation.
GLASS, OXIDE	A similar spherical glass powder was nontoxic to rats at 5,000 mg/kg. All animals survived, gained weight and appeared active and healthy. There were no signs of gross toxicity, adverse pharmacologic effects or abnormal behavior. There are no known reports of subchronic toxicity of nonfibrous glass. There are no known reports of carcinogenicity of nonfibrous glass When tested for primary irritation potential, a similar material caused minimal irritation to eyes and was non-irritating to skin. Dust in excess of recommended exposure limits may result in irritation to the respiratory tract
2,4,6-tris[(dimethylamino)methyl]phenol	Overexposure to most of these materials may cause adverse health effects. Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient. There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing. Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration. Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.
CARBON BLACK	Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported **WARNING:** This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.
SteelStik™ Epoxy Putty & TRIMERCAPTAN ETHER, PROPOXYLATED	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.
TRIMERCAPTAN ETHER, PROPOXYLATED & GLASS, OXIDE & 2,4,6-tris[(dimethylamino)methyl]phenol & CARBON BLACK	No significant acute toxicological data identified in literature search.

Acute Toxicity	✗	**Carcinogenicity**	✗
Skin Irritation/Corrosion	✓	**Reproductivity**	✗
Serious Eye Damage/Irritation	✓	**STOT - Single Exposure**	✗
Respiratory or Skin sensitisation	✓	**STOT - Repeated Exposure**	✗

Continued...

Mutagenicity	✗	**Aspiration Hazard**	✗

Legend: ✗ ***– Data either not available or does not fill the criteria for classification***
✓ ***– Data available to make classification***

SECTION 12 Ecological information

Toxicity

SteelStik™ Epoxy Putty

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

Talc

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	89581.016mg/l	2
NOEC(ECx)	720h	Algae or other aquatic plants	918.089mg/l	2
EC50	96h	Algae or other aquatic plants	7202.7mg/l	2

trimercaptan ether, propoxylated

Endpoint	Test Duration (hr)	Species	Value	Source
EC50(ECx)	48h	Crustacea	12mg/l	Not Available
EC50	48h	Crustacea	12mg/l	Not Available
LC50	96h	Fish	87mg/l	Not Available

glass, oxide

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	>1000mg/l	2
NOEC(ECx)	72h	Crustacea	>=1000mg/l	2
EC50	72h	Algae or other aquatic plants	>1000mg/l	2

2,4,6-tris[(dimethylamino)methyl]phenol

Endpoint	Test Duration (hr)	Species	Value	Source
EC50(ECx)	24h	Crustacea	280mg/l	Not Available
EC50	72h	Algae or other aquatic plants	2.8mg/l	2
EC50	48h	Crustacea	>100mg/l	2
LC50	96h	Fish	1000mg/l	Not Available

carbon black

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	>100mg/l	2
EC50	72h	Algae or other aquatic plants	>0.2mg/l	2
EC50	48h	Crustacea	33.076-41.968mg/l	4
NOEC(ECx)	24h	Crustacea	3200mg/l	1

bis[(dimethylamino)methyl]phenol

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

iron

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	48h	Algae or other aquatic plants	0.1-4mg/l	4
EC50	72h	Algae or other aquatic plants	18mg/l	2
EC50	48h	Crustacea	>100mg/l	2
LC50	96h	Fish	0.005-0.008mg/L	4

Legend: ***Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data***

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2,4,6-tris[(dimethylamino)methyl]phenol	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
2,4,6-tris[(dimethylamino)methyl]phenol	LOW (LogKOW = 0.773)

Continued...

Mobility in soil

Ingredient	Mobility
2,4,6-tris[(dimethylamino)methyl]phenol	LOW (Log KOC = 15130)

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal	▸ Containers may still present a chemical hazard/ danger when empty. ▸ Return to supplier for reuse/ recycling if possible. Otherwise: ▸ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. ▸ **DO NOT** allow wash water from cleaning or process equipment to enter drains. ▸ It may be necessary to collect all wash water for treatment before disposal. ▸ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▸ Recycle wherever possible or consult manufacturer for recycling options. ▸ Consult State Land Waste Authority for disposal. ▸ Bury or incinerate residue at an approved site.

SECTION 14 Transport information

Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
Talc	Not Available
trimercaptan ether, propoxylated	Not Available
glass, oxide	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available
carbon black	Not Available
bis[(dimethylamino)methyl]phenol	Not Available
iron	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
Talc	Not Available
trimercaptan ether, propoxylated	Not Available
glass, oxide	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available
carbon black	Not Available
bis[(dimethylamino)methyl]phenol	Not Available
iron	Not Available

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

Talc is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5
US - Massachusetts - Right To Know Listed Chemicals
US NIOSH Carcinogen List
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Limits (PELs) Table Z-1

Continued...

US OSHA Permissible Exposure Limits (PELs) Table Z-3
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

trimercaptan ether, propoxylated is found on the following regulatory lists

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

glass, oxide is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5
US - California Proposition 65 - Maximum Allowable Dose Levels (MADLs) for Chemicals Causing Reproductive Toxicity
US - California Proposition 65 - No Significant Risk Levels (NSRLs) for Carcinogens
US - Massachusetts - Right To Know Listed Chemicals
US Clean Air Act - Hazardous Air Pollutants
US CWA (Clean Water Act) - Priority Pollutants
US CWA (Clean Water Act) - Toxic Pollutants
US DOE Temporary Emergency Exposure Limits (TEELs)
US National Toxicology Program (NTP) 15th Report Part B. Reasonably Anticipated to be a Human Carcinogen
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Limits (PELs) Table Z-1
US OSHA Permissible Exposure Limits (PELs) Table Z-3
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

2,4,6-tris[(dimethylamino)methyl]phenol is found on the following regulatory lists

US DOE Temporary Emergency Exposure Limits (TEELs)
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

carbon black is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5
US - California Proposition 65 - Carcinogens
US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List
US - Massachusetts - Right To Know Listed Chemicals
US DOE Temporary Emergency Exposure Limits (TEELs)
US NIOSH Carcinogen List
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Limits (PELs) Table Z-1
US OSHA Permissible Exposure Limits (PELs) Table Z-3
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

bis[(dimethylamino)methyl]phenol is found on the following regulatory lists

Not Applicable

iron is found on the following regulatory lists

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5
US DOE Temporary Emergency Exposure Limits (TEELs)
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Limits (PELs) Table Z-1
US OSHA Permissible Exposure Limits (PELs) Table Z-3
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

Additional Regulatory Information

Not Applicable

ECHA SUMMARY

Ingredient	CAS number	Index No	ECHA Dossier
Talc	14807-96-6*	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	Carc. 1A; Eye Irrit. 2; STOT RE 1; Acute Tox. 4; STOT SE 3; Aquatic Chronic 4; Acute Tox. 3	GHS08; Dgr; GHS06	H350; H319; H372; H302; H335; H413; H331

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
trimercaptan ether, propoxylated	72244-98-5	Not Available	Not Available

Continued...

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Skin Sens. 1; Aquatic Chronic 3	GHS07; Wng	H317; H412
2	Skin Sens. 1; Aquatic Chronic 3; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2	GHS07; Wng	H317; H412; H302; H315; H319

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
glass, oxide	65997-17-3	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	Carc. 1B; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; STOT RE 2	GHS08; Dgr	H350; H315; H319; H335; H373

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
2,4,6-tris[(dimethylamino)methyl]phenol	90-72-2*	603-069-00-0	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2	GHS07; Wng	H302; H315; H319
2	Acute Tox. 4; Skin Corr. 1C; Eye Dam. 1; Skin Sens. 1B; Acute Tox. 4; Aquatic Chronic 2	GHS05; Dgr; GHS09	H314; H318; H317; H290; H312; H411; H301; H330

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
carbon black	1333-86-4	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	STOT SE 3; Eye Irrit. 2; STOT RE 1; Self-heat. 1; Skin Irrit. 2; STOT SE 1; Aquatic Chronic 1; Flam. Sol. 2; Acute Tox. 4; Carc. 1A	GHS08; Dgr; GHS06; GHS02; GHS09	H335; H319; H372; H251; H228; H315; H370; H410; H332; H350

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
bis[(dimethylamino)methyl]phenol	71074-89-0*	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4; Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; STOT SE 3	GHS05; Dgr	H302; H312; H314; H318; H335
2	Acute Tox. 4; Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; STOT SE 3; Skin Sens. 1B	GHS05; Dgr	H302; H312; H314; H318; H335; H317

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
iron	7439-89-6	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Sol. 1; Eye Irrit. 2; STOT SE 3	GHS07; GHS02; Dgr	H228; H319; H335
2	Flam. Sol. 1; Eye Irrit. 2; STOT SE 3	GHS07; GHS02; Dgr	H228; H319; H335
1	Not Classified	Not Available	Not Available
2	Flam. Sol. 1; Self-heat. 1; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; Aquatic Acute 1; Aquatic Chronic 1; STOT SE 3; STOT SE 3; STOT RE 2; Pyr. Sol. 1; Water-react. 2	GHS02; Dgr; GHS09; GHS08	H228; H251; H302; H315; H319; H400; H410; H335; H370; H372; H250; H261

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 hazard categories

Flammable (Gases, Aerosols, Liquids, or Solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No

Continued...

Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	Yes
Respiratory or Skin Sensitization	Yes
Serious eye damage or eye irritation	Yes
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	No

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

None Reported

US. EPCRA Section 313 Toxic Release Inventory (TRI) (40 CFR 372)

None Reported

Additional Federal Regulatory Information

Not Applicable

State Regulations

US. California Proposition 65

WARNING: This product can expose you to chemicals including **carbon black**, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov

Additional State Regulatory Information

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (bis[(dimethylamino)methyl]phenol)
Canada - DSL	Yes
Canada - NDSL	No (Talc; trimercaptan ether, propoxylated; glass, oxide; 2,4,6-tris[(dimethylamino)methyl]phenol; carbon black; bis[(dimethylamino)methyl]phenol; iron)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	No (trimercaptan ether, propoxylated)
Japan - ENCS	No (Talc; trimercaptan ether, propoxylated; glass, oxide; iron)
Korea - KECI	No (bis[(dimethylamino)methyl]phenol)
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	No (trimercaptan ether, propoxylated; bis[(dimethylamino)methyl]phenol)
Vietnam - NCI	Yes
Russia - FBEPH	No (trimercaptan ether, propoxylated; bis[(dimethylamino)methyl]phenol)
Legend:	***Yes = All CAS declared ingredients are on the inventory*** ***No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.***

SECTION 16 Other information

Revision Date	05/03/2024
Initial Date	09/13/2020

SDS Version Summary

Continued...

Version	Date of Update	Sections Updated
4.9	05/02/2024	Toxicological information - Acute Health (eye), Toxicological information - Acute Health (inhaled), Toxicological information - Acute Health (skin), Hazards identification - Classification, Exposure controls / personal protection - Engineering Control, Ecological Information - Environmental, Firefighting measures - Fire Fighter (extinguishing media), Firefighting measures - Fire Fighter (fire/explosion hazard), Firefighting measures - Fire Fighter (fire incompatibility), Composition / information on ingredients - Ingredients, Stability and reactivity - Instability Condition, Handling and storage - Storage (storage incompatibility)

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.
The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios.

Powered by AuthorITe, from Chemwatch.

end of SDS

SteelStik™ Epoxy Putty

J-B Weld Company, LLC

Version No: **5.9**
Safety Data Sheet according to WHMIS 2015 requirements

Issue Date: **05/03/2024**
Print Date: **05/03/2024**
S.GHS.CAN.EN

SECTION 1 Identification

Product Identifier

Product name	SteelStik™ Epoxy Putty
Synonyms	8267 (SteelStik™ Epoxy Putty Stick)
Other means of identification	UFI:SRVQ-J0S9-X008-KKMU

Recommended use of the chemical and restrictions on use

Relevant identified uses	Use according to manufacturer's directions.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	**J-B Weld Company, LLC**
Address	400 CMH Road Sulphur Springs, TX 75482 United States
Telephone	903-885-7696
Fax	903-885-5911
Website	www.jbweld.com
Email	info@jbweld.com

Emergency phone number

Association / Organisation	**InfoTrac**
Emergency telephone numbers	**For US and Canada (24 hour): 1-800-535-5053**
Other emergency telephone numbers	**Not Available**

SECTION 2 Hazard(s) identification

Classification of the substance or mixture

NFPA 704 diamond

Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Canadian WHMIS Symbols

Classification	Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2A

Label elements

Hazard pictogram(s)	

Page 1 continued...

Signal word	**Warning**

Hazard statement(s)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

Physical and Health hazard(s) not otherwise classified

Not Applicable

Precautionary statement(s) Prevention

P280	Wear protective gloves, protective clothing, eye protection and face protection.
P261	Avoid breathing mist/vapours/spray.
P264	Wash all exposed external body areas thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s) Response

P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
7439-89-6	25	iron
72244-98-5	24	trimercaptan ether, propoxylated
90-72-2*	4.5	2,4,6-tris[(dimethylamino)methyl]phenol
1333-86-4	0.5	carbon black
71074-89-0*	0.2	bis[(dimethylamino)methyl]phenol
14807-96-6*	38	Talc
65997-17-3	19	glass, oxide

SECTION 4 First-aid measures

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ▸ Wash out immediately with fresh running water. ▸ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▸ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: ▸ Immediately remove all contaminated clothing, including footwear. ▸ Flush skin and hair with running water (and soap if available). ▸ Seek medical attention in event of irritation.
Inhalation	▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▸ Other measures are usually unnecessary.
Ingestion	▸ Immediately give a glass of water. ▸ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Continued...

SECTION 5 Fire-fighting measures

Extinguishing media

Metal dust fires need to be smothered with sand, inert dry powders.
DO NOT USE WATER, CO2 or FOAM.

- Use DRY sand, graphite powder, dry sodium chloride based extinguishers, G-1 or Met L-X to smother fire.
- **DO NOT** use halogenated fire extinguishing agents.

Special hazards arising from the substrate or mixture

Fire Incompatibility	▸ Reacts with acids producing flammable / explosive hydrogen (H2) gas ▸ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Special protective equipment and precautions for fire-fighters

Fire Fighting	▸ Alert Fire Department and tell them location and nature of hazard. ▸ Wear breathing apparatus plus protective gloves in the event of a fire.
Fire/Explosion Hazard	▸ **DO NOT** disturb burning dust. Explosion may result if dust is stirred into a cloud, by providing oxygen to a large surface of hot metal. ▸ **DO NOT** use water or foam as generation of explosive hydrogen may result. Combustible. Will burn if ignited. Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) nitrogen oxides (NOx) sulfur oxides (SOx) metal oxides other pyrolysis products typical of burning organic material. May emit corrosive fumes.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	▸ Clean up all spills immediately. ▸ Avoid contact with skin and eyes. ▸ Wear impervious gloves and safety goggles.
Major Spills	Minor hazard. ▸ Clear area of personnel. ▸ Alert Fire Brigade and tell them location and nature of hazard.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	▸ Avoid all personal contact, including inhalation. ▸ Wear protective clothing when risk of exposure occurs. ▸ Use in a well-ventilated area.
Other information	▸ Store in original containers. ▸ Keep containers securely sealed. ▸ Store in a cool, dry, well-ventilated area.

Conditions for safe storage, including any incompatibilities

Suitable container	▸ Metal can or drum ▸ Packaging as recommended by manufacturer. ▸ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	For frits: ▸ Avoid storage with hydrogen fluoride/ hydrofluoric acid, oxygen difluoride, manganese trifluoride, fluorine and other fluorine containing compounds, manganese trioxide, chlorates, chlorine trifluoride, chlorine trioxide, strong alkalis, metal oxides, concentrated orthophosphoric acid or vinyl acetate. ▸ WARNING: Avoid or control reaction with peroxides. All ***transition meta***l peroxides should be considered as potentially explosive. For example transition metal complexes of alkyl hydroperoxides may decompose explosively. ▸ Many metals may incandesce, react violently, ignite or react explosively upon addition of concentrated nitric acid. ▸ Reacts slowly with water. ▸ **CAUTION** contamination with moisture will liberate explosive hydrogen gas, causing pressure build up in sealed containers. ▸ Reacts violently with caustic soda, other alkalies - generating heat, highly flammable hydrogen gas. ▸ If alkali is dry, heat generated may ignite hydrogen - if alkali is in solution may cause violent foaming

Continued...

Metals exhibit varying degrees of activity. Reaction is reduced in the massive form (sheet, rod, or drop), compared with finely divided forms. The less active metals will not burn in air but:

- can react exothermically with oxidising acids to form noxious gases.
- Finely divided metal powders develop pyrophoricity when a critical specific surface area is exceeded; this is ascribed to high heat of oxide formation on exposure to air.
- Safe handling is possible in relatively low concentrations of oxygen in an inert gas.
- Several pyrophoric metals, stored in glass bottles have ignited when the container is broken on impact.
- Many metals in elemental form react exothermically with compounds having active hydrogen atoms (such as acids and water) to form flammable hydrogen gas and caustic products.
- Elemental metals may react with azo/diazo compounds to form explosive products.
- Some elemental metals form explosive products with halogenated hydrocarbons.

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	Talc	Talc, (respirable fraction++)	2 mg/m3	Not Available	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	Talc	Not Available	Not Available	Not Available	Not Available	TLV® Basis: Use Asbestos TLV®
Canada - Manitoba Occupational Exposure Limits	Talc	Not Available	2 mg/m3	Not Available	Not Available	TLV® Basis: Pulm fibrosis; pulm func
Canada - Prince Edward Island Occupational Exposure Limits	Talc	Talc - Containing asbestos fibers	Not Available	Not Available	Not Available	TLV® Basis: Use Asbestos TLV®
Canada - Prince Edward Island Occupational Exposure Limits	Talc	Talc - Containing no asbestos fibers	2 mg/m3	Not Available	Not Available	TLV® Basis: Pulm fibrosis; pulm func
Canada - British Columbia Occupational Exposure Limits	Talc	Talc - Containing no asbestos fibres, Respirable	2 mg/m3	Not Available	Not Available	(E) - the value is for particulate matter containing no asbestos and less than 1% crystalline silica.
Canada - British Columbia Occupational Exposure Limits	Talc	Talc - Containing asbestos fibres	0.1 f/cc	Not Available	Not Available	(K) - should not exceed 2 mg/m3 respirable particulate.
Canada - Ontario Occupational Exposure Limits	Talc	Talc, containing no asbestos	2 f/cc	Not Available	Not Available	(K) Should not exceed 2 mg/m3 respirable particulate mass.
Canada - Ontario Occupational Exposure Limits	Talc	Talc, containing no asbestos (Respirable fraction)	2 mg/m3	Not Available	Not Available	(R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency. (E) The value is for particulate matter containing no asbestos and < 1 per cent crystalline silica.
Canada - Nova Scotia Occupational Exposure Limits	Talc	Soapstone	6 mg/m3	Not Available	Not Available	TLV Basis: lower respiratory tract irritation. Particulate matter containing no asbestos and < 1% crystalline silica.
Canada - Nova Scotia Occupational Exposure Limits	Talc	Soapstone	3 mg/m3	Not Available	Not Available	TLV Basis: lower respiratory tract irritation. Particulate matter containing no asbestos and < 1% crystalline silica.
Canada - Nova Scotia Occupational Exposure Limits	Talc	Talc - Containing no asbestos fibers	2 mg/m3	Not Available	Not Available	TLV Basis: lower respiratory tract irritation
Canada - Nova Scotia Occupational Exposure Limits	Talc	Talc - Containing asbestos fibers	Not Available	Not Available	2 mg/m3	Use asbestos TLV, not to exceed stated ceiling. TLV Basis/Critical Effect(s): asbestosis; cancer
Canada - Alberta Occupational Exposure Limits	Talc	Talc: Respirable particulate containing no asbestos fibres	2 mg/m3	Not Available	Not Available	Not Available
Canada - Alberta Occupational Exposure Limits	Talc	Soapstone: Respirable	3 mg/m3	Not Available	Not Available	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Alberta Occupational Exposure Limits	Talc	Soapstone: Total (no asbestos and less than 1% crystalline silica)	6 mg/m3	Not Available	Not Available	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Northwest Territories Occupational Exposure Limits	Talc	Talc, (respirable fraction)	2 mg/m3	Not Available	Not Available	Not Available
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	Talc	Talc, fibrous (note 4)	1 f/cc	Not Available	Not Available	C1: carcinogenic effect detected in humans EM: A substance to which exposure must be reduced to a minimum Note 4: Permissible exposure values in number of respirable fibres per cm3
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	Talc	Talc, non fibrous - Respirable dust	2 mg/m3	Not Available	Not Available	Note 1: The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1%.

Continued...

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	glass, oxide	Mineral wool	Not Available	Not Available	Not Available	(See Table 11)
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Inhalable fraction++	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Respirable fraction++	3 mg/m3	6 mg/m3	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) Not Otherwise Classified (PNOC)	10 mg/m3	Not Available	Not Available	(N) - the 8-hour TWA listed in the Table is for the total dust. The substance also has an 8-hour TWA of 3 mg/m 3 for the respirable fraction.
Canada - Ontario Occupational Exposure Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Inhalable fraction)	10 mg/m3	Not Available	Not Available	(I) Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency.
Canada - Ontario Occupational Exposure Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Respirable fraction)	3 mg/m3	Not Available	Not Available	(R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency.
Canada - Nova Scotia Occupational Exposure Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) [NOS] Inhalable particles	10 mg/m3	Not Available	Not Available	See Appendix B current TLV/BEI Book
Canada - Nova Scotia Occupational Exposure Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) [NOS] Respirable particles	3 mg/m3	Not Available	Not Available	See Appendix B current TLV/BEI Book
Canada - Alberta Occupational Exposure Limits	glass, oxide	Particulate Not Otherwise Regulated: Respirable	3 mg/m3	Not Available	Not Available	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Alberta Occupational Exposure Limits	glass, oxide	Particulate Not Otherwise Regulated: Total	10 mg/m3	Not Available	Not Available	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Northwest Territories Occupational Exposure Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Inhalable fraction	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits	glass, oxide	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Respirable fraction	3 mg/m3	6 mg/m3	Not Available	Not Available
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	glass, oxide	Particulates Not Otherwise Classified (PNOC) - Total dust	10 mg/m3	Not Available	Not Available	Note 1: The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1%.
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	carbon black	Carbon black	3.5 mg/m3	7 mg/m3	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	carbon black	Carbon black	3.5 mg/m3	7 mg/m3	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	carbon black	Not Available	3 mg/m3	Not Available	Not Available	TLV® Basis: Bronchitis
Canada - Prince Edward Island Occupational Exposure Limits	carbon black	Carbon black	3 mg/m3	Not Available	Not Available	TLV® Basis: Bronchitis
Canada - British Columbia Occupational Exposure Limits	carbon black	Carbon black, Inhalable	3 mg/m3	Not Available	Not Available	Not Available
Canada - Ontario Occupational Exposure Limits	carbon black	Particles (Insoluble or Poorly Soluble) Not Otherwise	3 mg/m3	Not Available	Not Available	(R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling

Continued...

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
		Specified (PNOS) (Respirable fraction)				with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency.
Canada - Ontario Occupational Exposure Limits	carbon black	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Inhalable fraction)	10 mg/m3	Not Available	Not Available	(I) Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency.
Canada - Nova Scotia Occupational Exposure Limits	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Not Available
Canada - Alberta Occupational Exposure Limits	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits	carbon black	Carbon black	3.5 mg/m3	7 mg/m3	Not Available	Not Available
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	carbon black	Carbon black - inhalable dust	3 mg/m3	Not Available	Not Available	C3: carcinogenic effect detected in animals
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	iron	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Respirable fraction++	3 mg/m3	6 mg/m3	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	iron	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Inhalable fraction++	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - Ontario Occupational Exposure Limits	iron	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Inhalable fraction)	10 mg/m3	Not Available	Not Available	(I) Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency.
Canada - Ontario Occupational Exposure Limits	iron	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Respirable fraction)	3 mg/m3	Not Available	Not Available	(R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency.
Canada - Nova Scotia Occupational Exposure Limits	iron	Particles (Insoluble or Poorly Soluble) [NOS] Inhalable particles	10 mg/m3	Not Available	Not Available	See Appendix B current TLV/BEI Book
Canada - Nova Scotia Occupational Exposure Limits	iron	Particles (Insoluble or Poorly Soluble) [NOS] Respirable particles	3 mg/m3	Not Available	Not Available	See Appendix B current TLV/BEI Book
Canada - Alberta Occupational Exposure Limits	iron	Particulate Not Otherwise Regulated: Total	10 mg/m3	Not Available	Not Available	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Alberta Occupational Exposure Limits	iron	Particulate Not Otherwise Regulated: Respirable	3 mg/m3	Not Available	Not Available	3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Canada - Northwest Territories Occupational Exposure Limits	iron	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Respirable fraction	3 mg/m3	6 mg/m3	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits	iron	Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Inhalable fraction	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	iron	Particulates Not Otherwise Classified (PNOC) - Total dust	10 mg/m3	Not Available	Not Available	Note 1: The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1%.

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
glass, oxide	15 mg/m3	170 mg/m3	990 mg/m3

Continued...

Ingredient	TEEL-1	TEEL-2	TEEL-3
2,4,6-tris[(dimethylamino)methyl]phenol	6.5 mg/m3	72 mg/m3	430 mg/m3
carbon black	9 mg/m3	99 mg/m3	590 mg/m3
iron	3.2 mg/m3	35 mg/m3	150 mg/m3

Ingredient	Original IDLH	Revised IDLH
Talc	1,000 mg/m3	Not Available
trimercaptan ether, propoxylated	Not Available	Not Available
glass, oxide	Not Available	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available	Not Available
carbon black	1,750 mg/m3	Not Available
bis[(dimethylamino)methyl]phenol	Not Available	Not Available
iron	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
trimercaptan ether, propoxylated	D	> 0.1 to ≤ 1 ppm
2,4,6-tris[(dimethylamino)methyl]phenol	E	≤ 0.1 ppm
Notes:	***Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.***	

Exposure controls

Appropriate engineering controls	Metal dusts must be collected at the source of generation as they are potentially explosive. ▸ Avoid ignition sources. ▸ Good housekeeping practices must be maintained.
Individual protection measures, such as personal protective equipment	
Eye and face protection	▸ Safety glasses with side shields. ▸ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] ▸ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.
Skin protection	See Hand protection below
Hands/feet protection	▸ Wear chemical protective gloves, e.g. PVC. ▸ Wear safety footwear or safety gumboots, e.g. Rubber **NOTE:** ▸ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▸ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
Body protection	See Other protection below
Other protection	▸ Overalls. ▸ P.V.C apron. ▸ Barrier cream.

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Grey Putty

Physical state	Non Slump Paste	**Relative density (Water = 1)**	Not Available
Odor	Not Available	**Partition coefficient n-octanol / water**	Not Available

Continued...

Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Available
pH (as supplied)	Not Available	**Decomposition temperature (°C)**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	Not Available
Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	Not Available
Flash point (°C)	Not Available		
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not Available	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Available	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	Not Available	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water	Immiscible	**pH as a solution (1%)**	Not Available
Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	▸ Presence of heat source and ignition source Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not normally a hazard due to non-volatile nature of product
Ingestion	The material has **NOT** been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Irritation and skin reactions are possible with sensitive skin Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	This material can cause eye irritation and damage in some persons. Contact with the eye by metal dusts may produce mechanical abrasion or foreign body penetration of the eyeball. Iron particles embedded in the eye may cause discolouration of the cornea and iris, and effects on the pupil such as poor rection to light and accommodation.
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.

SteelStik™ Epoxy Putty	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
Talc	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg[1]	Eye: no adverse effect observed (not irritating)[1]
	Inhalation (Rat) LC50: >2.1 mg/l4h[1]	Skin: no adverse effect observed (not irritating)[1]

Continued...

	Oral (Rat) LD50: >5000 mg/kg[1]

trimercaptan ether, propoxylated

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >10200 mg/kg[2]	Not Available
Oral (Rat) LD50: 2600 mg/kg[2]	

glass, oxide

TOXICITY	IRRITATION
Not Available	Not Available

2,4,6-tris[(dimethylamino)methyl]phenol

TOXICITY	IRRITATION
Dermal (rabbit) LD50: 1280 mg/kg[2]	Eye (rabbit): 0.05 mg/24h - SEVERE
Inhalation (Rat) LC50: >0.5 mg/l/1 hr.[2]	Eye: adverse effect observed (irreversible damage)[1]
Oral (Rat) LD50: 1200 mg/kg[2]	Skin (rabbit): 2 mg/24h - SEVERE
Oral (Rat) LD50: 2500 mg/kg *[2]	Skin: adverse effect observed (corrosive)[1]

carbon black

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >2000 mg/kg[1]	Eye: no adverse effect observed (not irritating)[1]
Oral (Rat) LD50: >2000 mg/kg[1]	Skin: no adverse effect observed (not irritating)[1]

bis[(dimethylamino)methyl]phenol

TOXICITY	IRRITATION
Not Available	Not Available

iron

TOXICITY	IRRITATION
Oral (Rat) LD50: 98600 mg/kg[2]	Not Available

Legend: ***1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances***

TRIMERCAPTAN ETHER, PROPOXYLATED	Polyethers (such as ethoxylated surfactants and polyethylene glycols) are highly susceptible to being oxidized in the air. They then form complex mixtures of oxidation products. Animal testing reveals that whole the pure, non-oxidised surfactant is non-sensitizing, many of the oxidation products are sensitisers. The oxidization products also cause irritation.
GLASS, OXIDE	A similar spherical glass powder was nontoxic to rats at 5,000 mg/kg. All animals survived, gained weight and appeared active and healthy. There were no signs of gross toxicity, adverse pharmacologic effects or abnormal behavior. There are no known reports of subchronic toxicity of nonfibrous glass. There are no known reports of carcinogenicity of nonfibrous glass When tested for primary irritation potential, a similar material caused minimal irritation to eyes and was non-irritating to skin. Dust in excess of recommended exposure limits may result in irritation to the respiratory tract
2,4,6-tris[(dimethylamino)methyl]phenol	Overexposure to most of these materials may cause adverse health effects. Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient. There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing. Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration. Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.
CARBON BLACK	Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported **WARNING:** This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.
SteelStik™ Epoxy Putty & TRIMERCAPTAN ETHER, PROPOXYLATED	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.
TRIMERCAPTAN ETHER, PROPOXYLATED & GLASS, OXIDE & 2,4,6-tris[(dimethylamino)methyl]phenol & CARBON BLACK	No significant acute toxicological data identified in literature search.

Acute Toxicity	✗	**Carcinogenicity**	✗

Continued...

Skin Irritation/Corrosion	✔	**Reproductivity**	✘
Serious Eye Damage/Irritation	✔	**STOT - Single Exposure**	✘
Respiratory or Skin sensitisation	✔	**STOT - Repeated Exposure**	✘
Mutagenicity	✘	**Aspiration Hazard**	✘

Legend: ✘ *– Data either not available or does not fill the criteria for classification*
✔ *– Data available to make classification*

SECTION 12 Ecological information

Toxicity

SteelStik™ Epoxy Putty

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

Talc

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	89581.016mg/l	2
NOEC(ECx)	720h	Algae or other aquatic plants	918.089mg/l	2
EC50	96h	Algae or other aquatic plants	7202.7mg/l	2

trimercaptan ether, propoxylated

Endpoint	Test Duration (hr)	Species	Value	Source
EC50(ECx)	48h	Crustacea	12mg/l	Not Available
EC50	48h	Crustacea	12mg/l	Not Available
LC50	96h	Fish	87mg/l	Not Available

glass, oxide

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	>1000mg/l	2
NOEC(ECx)	72h	Crustacea	>=1000mg/l	2
EC50	72h	Algae or other aquatic plants	>1000mg/l	2

2,4,6-tris[(dimethylamino)methyl]phenol

Endpoint	Test Duration (hr)	Species	Value	Source
EC50(ECx)	24h	Crustacea	280mg/l	Not Available
EC50	72h	Algae or other aquatic plants	2.8mg/l	2
EC50	48h	Crustacea	>100mg/l	2
LC50	96h	Fish	1000mg/l	Not Available

carbon black

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	>100mg/l	2
EC50	72h	Algae or other aquatic plants	>0.2mg/l	2
EC50	48h	Crustacea	33.076-41.968mg/l	4
NOEC(ECx)	24h	Crustacea	3200mg/l	1

bis[(dimethylamino)methyl]phenol

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

iron

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	48h	Algae or other aquatic plants	0.1-4mg/l	4
EC50	72h	Algae or other aquatic plants	18mg/l	2
EC50	48h	Crustacea	>100mg/l	2
LC50	96h	Fish	0.005-0.008mg/L	4

Legend: *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2,4,6-tris[(dimethylamino)methyl]phenol	HIGH	HIGH

Continued...

Bioaccumulative potential

Ingredient	Bioaccumulation
2,4,6-tris[(dimethylamino)methyl]phenol	LOW (LogKOW = 0.773)

Mobility in soil

Ingredient	Mobility
2,4,6-tris[(dimethylamino)methyl]phenol	LOW (Log KOC = 15130)

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal	▸ Containers may still present a chemical hazard/ danger when empty. ▸ Return to supplier for reuse/ recycling if possible. Otherwise: ▸ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. ▸ **DO NOT** allow wash water from cleaning or process equipment to enter drains. ▸ It may be necessary to collect all wash water for treatment before disposal. ▸ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▸ Recycle wherever possible or consult manufacturer for recycling options. ▸ Consult State Land Waste Authority for disposal. ▸ Bury or incinerate residue at an approved site.

SECTION 14 Transport information

Land transport (TDG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
Talc	Not Available
trimercaptan ether, propoxylated	Not Available
glass, oxide	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available
carbon black	Not Available
bis[(dimethylamino)methyl]phenol	Not Available
iron	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
Talc	Not Available
trimercaptan ether, propoxylated	Not Available
glass, oxide	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available
carbon black	Not Available
bis[(dimethylamino)methyl]phenol	Not Available
iron	Not Available

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations.

Talc is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
Canada Domestic Substances List (DSL)

Continued...

Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS
Chemical Footprint Project - Chemicals of High Concern List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

trimercaptan ether, propoxylated is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
Canada Domestic Substances List (DSL)

glass, oxide is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
Canada Domestic Substances List (DSL)
Chemical Footprint Project - Chemicals of High Concern List
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

2,4,6-tris[(dimethylamino)methyl]phenol is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
Canada Domestic Substances List (DSL)
Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

carbon black is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
Canada Domestic Substances List (DSL)
Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS
Chemical Footprint Project - Chemicals of High Concern List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

bis[(dimethylamino)methyl]phenol is found on the following regulatory lists

Not Applicable

iron is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
Canada Domestic Substances List (DSL)
Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

Additional Regulatory Information

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (bis[(dimethylamino)methyl]phenol)
Canada - DSL	Yes
Canada - NDSL	No (Talc; trimercaptan ether, propoxylated; glass, oxide; 2,4,6-tris[(dimethylamino)methyl]phenol; carbon black; bis[(dimethylamino)methyl]phenol; iron)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	No (trimercaptan ether, propoxylated)
Japan - ENCS	No (Talc; trimercaptan ether, propoxylated; glass, oxide; iron)
Korea - KECI	No (bis[(dimethylamino)methyl]phenol)
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	No (trimercaptan ether, propoxylated; bis[(dimethylamino)methyl]phenol)
Vietnam - NCI	Yes
Russia - FBEPH	No (trimercaptan ether, propoxylated; bis[(dimethylamino)methyl]phenol)
Legend:	***Yes = All CAS declared ingredients are on the inventory*** ***No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.***

SECTION 16 Other information

Revision Date	05/03/2024
Initial Date	09/13/2020

SDS Version Summary

Continued...

Version	Date of Update	Sections Updated
4.9	05/02/2024	Toxicological information - Acute Health (eye), Toxicological information - Acute Health (inhaled), Toxicological information - Acute Health (skin), Hazards identification - Classification, Exposure controls / personal protection - Engineering Control, Ecological Information - Environmental, Firefighting measures - Fire Fighter (extinguishing media), Firefighting measures - Fire Fighter (fire/explosion hazard), Firefighting measures - Fire Fighter (fire incompatibility), Composition / information on ingredients - Ingredients, Stability and reactivity - Instability Condition, Handling and storage - Storage (storage incompatibility)

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.
The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios.

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end of SDS