

STEEL-REINFORCED EPOXY PUTTY, 114 g

Version Revision Date: SDS Number: Date of last issue: 11/19/2020
2.2 10/27/2021 4961954-00004 Date of first issue: 09/30/2019

SECTION 1. IDENTIFICATION

Product name : STEEL-REINFORCED EPOXY PUTTY, 114 g
Product code : 893.449012
Other means of identification : No data available

Manufacturer or supplier's details

Company name of supplier : Würth Canada Limited
Address : 345 Hanlon Creek Blvd
 GUELPH, ON N1C 0A1
Telephone : +1 (905) 564 6225
Telefax : +1 (905) 564 3671
Emergency telephone : Emergencies involving a spill, fire, explosion or exposure:
 CHEMTREC (24/7): 1-800-424-9300
 Transport related emergencies:
 CANUTEC (24/7): 1-613-996-6666 or * 666 (cell)

 Urgences impliquant un déversement, incendie, explosion ou
 exposition:
 CHEMTREC (24/7): 1-800-424-9300
 Urgences liées au transport:
 CANUTEC (24/7): 1-613-996-6666 ou * 666 (cellulaire)

E-mail address : prodsafe@wurth.ca

Recommended use of the chemical and restrictions on use

Recommended use : Epoxy curing agent

Restrictions on use : Not applicable

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with the Hazardous Products Regulations**

Skin irritation : Category 2
Serious eye damage : Category 1
Skin sensitization : Category 1
Carcinogenicity (Inhalation) : Category 1A

GHS label elements

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Hazard pictograms : 

Signal Word : Danger

Hazard Statements : H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H350 May cause cancer by inhalation.

Precautionary Statements : **Prevention:**
 P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P261 Avoid breathing dust, fume, gas, mist, vapors or spray.
 P264 Wash skin thoroughly after handling.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P280 Wear protective gloves, protective clothing, eye protection and face protection.

Response:
 P302 + P352 IF ON SKIN: Wash with plenty of water.
 P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER.
 P308 + P313 IF exposed or concerned: Get medical attention.
 P333 + P313 If skin irritation or rash occurs: Get medical attention.
 P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:
 P405 Store locked up.

Disposal:
 P501 Dispose of contents and container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

| Chemical name | Common Name/Synonym | CAS-No. | Concentration (% w/w) |
|---------------|---------------------|------------|-----------------------|
| Talc | Talc | 14807-96-6 | >= 30 - < 60 * |

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| | (Mg ₃ H ₂ (SiO ₃) ₄) | | |
|---|---|------------|---------------|
| Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) | Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxirane | 25068-38-6 | ≥ 10 - < 30 * |
| Aluminium | No data available | 7429-90-5 | ≥ 5 - < 10 * |
| 2,4,6-Tris(dimethylaminomethyl)phenol | Phenol, 2,4,6-tris[(dimethylamino)methyl]- | 90-72-2 | ≥ 1 - < 5 * |
| Quartz | Silicon Dioxide | 14808-60-7 | ≥ 0.1 - < 1 * |

* Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
 When symptoms persist or in all cases of doubt seek medical advice.
- If inhaled : If inhaled, remove to fresh air.
 Get medical attention if symptoms occur.
- In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
 Get medical attention.
 Wash clothing before reuse.
 Thoroughly clean shoes before reuse.
- In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
 If easy to do, remove contact lens, if worn.
 Get medical attention immediately.
- If swallowed : If swallowed, DO NOT induce vomiting.
 Get medical attention if symptoms occur.
 Rinse mouth thoroughly with water.
- Most important symptoms and effects, both acute and delayed : Causes skin irritation.
 May cause an allergic skin reaction.
 Causes serious eye damage.
 May cause cancer by inhalation.
- Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
- Notes to physician : Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

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- Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing media : None known.
- Specific hazards during fire fighting : Vapors may form explosive mixtures with air.
Exposure to combustion products may be a hazard to health.
- Hazardous combustion products : Carbon oxides
Nitrogen oxides (NO_x)
Metal oxides
Silicon oxides
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.
-

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).
- Environmental precautions : Avoid release to the environment.
Prevent further leakage or spillage if safe to do so.
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material.
For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.
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SECTION 7. HANDLING AND STORAGE

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- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- Local/Total ventilation : Use only with adequate ventilation.
- Advice on safe handling : Do not get on skin or clothing.
 Avoid breathing dust, fume, gas, mist, vapors or spray.
 Do not swallow.
 Do not get in eyes.
 Wash skin thoroughly after handling.
 Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
 Keep container tightly closed.
 Take care to prevent spills, waste and minimize release to the environment.
- Conditions for safe storage : Keep in properly labeled containers.
 Store locked up.
 Keep tightly closed.
 Store in accordance with the particular national regulations.
- Materials to avoid : Do not store with the following product types:
 Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Ingredients with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|------------|------------|---|--|-----------|
| Talc | 14807-96-6 | TWAEV (respirable dust) | 2 mg/m ³ | CA QC OEL |
| | | TWA (Respirable particulates) | 2 mg/m ³ | CA AB OEL |
| | | TWA (Respirable) | 2 mg/m ³ | CA BC OEL |
| | | TWA | 2 fibres per cubic centimeter | CA ON OEL |
| | | TWA (Respirable fraction) | 2 mg/m ³ | CA ON OEL |
| | | TWA (Respirable particulate matter) | 2 mg/m ³ | ACGIH |
| Aluminium | 7429-90-5 | TWA (Dust) | 10 mg/m ³ | CA AB OEL |
| | | TWAEV | 10 mg/m ³ | CA QC OEL |
| | | TWA (Respirable) (Aluminum) | 1 mg/m ³ | CA BC OEL |
| | | TWA (Respirable particulate) (Aluminum) | 1 mg/m ³ | ACGIH |

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| Quartz | 14808-60-7 | late matter) TWA (Respirable particulates) | 0.025 mg/m ³ | CA AB OEL |
| | | TWA (Respirable fraction) | 0.1 mg/m ³ | CA ON OEL |
| | | TWAEV (respirable dust) | 0.1 mg/m ³ | CA QC OEL |
| | | TWA (Respirable particulates) | 0.025 mg/m ³ (Silica) | CA AB OEL |
| | | TWA (Respirable) | 0.025 mg/m ³ (Silica) | CA BC OEL |
| | | TWA (Respirable particulate matter) | 0.025 mg/m ³ (Silica) | ACGIH |

Engineering measures : Ensure adequate ventilation, especially in confined areas. Minimize workplace exposure concentrations.

Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Combined particulates and organic vapor type

Hand protection

Material : PVA
 Break through time : <= 300 min
 Glove thickness : >= 0.08 mm

Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment: Chemical resistant goggles must be worn. If splashes are likely to occur, wear: Face-shield

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

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Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
When using do not eat, drink or smoke.
Contaminated work clothing should not be allowed out of the workplace.
Wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : paste

Color : black

Odor : sulfurous

Odor Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling range : No data available

Flash point : > 93.3 °C

Evaporation rate : Not applicable

Flammability (solid, gas) : Not classified as a flammability hazard

Flammability (liquids) : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : Not applicable

Relative vapor density : Not applicable

Density : 2.18 g/cm³ (20 °C)

Solubility(ies)
Water solubility : insoluble

Partition coefficient: n- : Not applicable

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octanol/water

Autoignition temperature : No data available

Decomposition temperature : > 220 °C

Viscosity

Viscosity, kinematic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Particle size : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Vapors may form explosive mixture with air.
Can react with strong oxidizing agents.

Conditions to avoid : None known.

Incompatible materials : Oxidizing agents

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Skin contact

Ingestion

Eye contact

Acute toxicity

Not classified based on available information.

Product:Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method**Components:****Talc:**Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Remarks: Based on data from similar materials

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Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 420
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Aluminium:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 0.888 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

2,4,6-Tris(dimethylaminomethyl)phenol:

Acute oral toxicity : LD50 (Rat): 1,653 mg/kg
Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

Quartz:

Acute oral toxicity : LD50 (Rat): > 22,500 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Components:**Talc:**

Species : Rabbit
Result : No skin irritation

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Species : Rabbit
Method : OECD Test Guideline 404
Result : Skin irritation

Aluminium:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
Remarks : Based on data from similar materials

2,4,6-Tris(dimethylaminomethyl)phenol:

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Species : Rabbit
Method : OECD Test Guideline 404
Result : Corrosive after 1 to 4 hours of exposure

Quartz:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
Remarks : Based on data from similar materials

Serious eye damage/eye irritation

Causes serious eye damage.

Components:**Talc:**

Species : Rabbit
Result : No eye irritation

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405

Aluminium:

Species : Rabbit
Result : No eye irritation
Remarks : Based on data from similar materials

2,4,6-Tris(dimethylaminomethyl)phenol:

Species : Rabbit
Result : Irreversible effects on the eye

Quartz:

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405
Remarks : Based on data from similar materials

Respiratory or skin sensitization**Skin sensitization**

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

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Components:**Talc:**

Routes of exposure : Skin contact
Species : Humans
Result : negative

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight \leq 700):

Test Type : Local lymph node assay (LLNA)
Routes of exposure : Skin contact
Species : Mouse
Method : OECD Test Guideline 429
Result : positive

Assessment : Probability or evidence of skin sensitization in humans

Aluminium:

Test Type : Draize Test
Routes of exposure : Skin contact
Species : Guinea pig
Result : negative
Remarks : Based on data from similar materials

2,4,6-Tris(dimethylaminomethyl)phenol:

Test Type : Maximization Test
Routes of exposure : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : equivocal

Test Type : Buehler Test
Routes of exposure : Skin contact
Species : Guinea pig
Result : negative

Germ cell mutagenicity

Not classified based on available information.

Components:**Talc:**

Genotoxicity in vitro : Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Result: negative

Genotoxicity in vivo : Test Type: Chromosome aberration test in vitro
Species: Rat
Application Route: Ingestion
Result: negative

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Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian spermatogonial chromosome aberration test (in vivo)
Species: Mouse
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Aluminium:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative

2,4,6-Tris(dimethylaminomethyl)phenol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Carcinogenicity

May cause cancer by inhalation.

Components:**Talc:**

Species : Mouse
Application Route : inhalation (dust/mist/fume)
Exposure time : 2 Years
Result : negative

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Species : Rat
Application Route : Ingestion
Exposure time : 24 month(s)
Method : OECD Test Guideline 453
Result : negative
Remarks : Based on data from similar materials

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Aluminium:

Species : Rat
Application Route : inhalation (dust/mist/fume)
Exposure time : 86 weeks
Result : negative

Quartz:

Species : Humans
Application Route : inhalation (dust/mist/fume)
Result : positive

Carcinogenicity - Assessment : Positive evidence from human epidemiological studies (inhalation)

Reproductive toxicity

Not classified based on available information.

Components:**Talc:**

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: negative

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative
Remarks: Based on data from similar materials

Aluminium:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Embryo-fetal development
Species: Mouse

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Application Route: Ingestion
Result: negative

2,4,6-Tris(dimethylaminomethyl)phenol:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Components:**Quartz:**

Routes of exposure : inhalation (dust/mist/fume)
Target Organs : Lungs
Assessment : Shown to produce significant health effects in animals at concentrations of 0.02 mg/l/6h/d or less.

Repeated dose toxicity**Components:**

Reaction product: bisphenol-A(epichlorhydrin); epoxy resin (number average molecular weight \leq 700):

Species : Rat
NOAEL : 50 mg/kg
LOAEL : 250 mg/kg
Application Route : Ingestion
Exposure time : 14 Weeks
Method : OECD Test Guideline 408
Remarks : Based on data from similar materials

2,4,6-Tris(dimethylaminomethyl)phenol:

Species : Rat
NOAEL : 15 mg/kg
Application Route : Ingestion
Exposure time : 43 Days
Method : OECD Test Guideline 422

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Quartz:

| | | |
|-------------------|---|-------------------------|
| Species | : | Humans |
| LOAEL | : | 0.053 mg/m ³ |
| Application Route | : | Inhalation |

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****Talc:**

| | | |
|------------------|---|---|
| Toxicity to fish | : | LC50 (Brachydanio rerio (zebrafish)): > 100,000 mg/l Exposure time: 24 h |
|------------------|---|---|

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

| | | |
|------------------|---|--|
| Toxicity to fish | : | LC50 (Oncorhynchus mykiss (rainbow trout)): 1.2 mg/l Exposure time: 96 h Remarks: Based on data from similar materials |
|------------------|---|--|

| | | |
|---|---|--|
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 1.1 mg/l Exposure time: 48 h |
|---|---|--|

| | | |
|----------------------------------|---|--|
| Toxicity to algae/aquatic plants | : | EC50 (Scenedesmus capricornutum (fresh water algae)): > 11 mg/l Exposure time: 72 h |
|----------------------------------|---|--|

| | | |
|--|---|---|
| | : | NOEC (Scenedesmus capricornutum (fresh water algae)): 4.2 mg/l Exposure time: 72 h |
|--|---|---|

| | | |
|--|---|--|
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): 0.3 mg/l Exposure time: 21 d |
|--|---|--|

| | | |
|----------------------------|---|--|
| Toxicity to microorganisms | : | IC50: > 100 mg/l Exposure time: 3 h |
|----------------------------|---|--|

Aluminium:

| | | |
|------------------|---|--|
| Toxicity to fish | : | (Oncorhynchus mykiss (rainbow trout)): Exposure time: 96 h Remarks: No toxicity at the limit of solubility. Based on data from similar materials |
|------------------|---|--|

| | | |
|---|---|--|
| Toxicity to daphnia and other aquatic invertebrates | : | (Daphnia magna (Water flea)): Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: No toxicity at the limit of solubility. |
|---|---|--|

| | | |
|---------------------------|---|---|
| Toxicity to algae/aquatic | : | (Pseudokirchneriella subcapitata (green algae)): Exposure |
|---------------------------|---|---|

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plants
 time: 72 h
 Method: OECD Test Guideline 201
 Remarks: No toxicity at the limit of solubility.
 Based on data from similar materials

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 7.1 mg/l
 Exposure time: 28 d
 Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 1.89 mg/l
 Exposure time: 28 d
 Remarks: Based on data from similar materials

2,4,6-Tris(dimethylaminomethyl)phenol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 180 mg/l
 Exposure time: 96 h

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 84 mg/l
 Exposure time: 72 h
 Method: OECD Test Guideline 201

NOEC (Desmodesmus subspicatus (green algae)): 6.25 mg/l
 Exposure time: 72 h
 Method: OECD Test Guideline 201

Toxicity to microorganisms : NOEC: 2 mg/l
 Exposure time: 28 d
 Method: OECD Test Guideline 301D

Quartz:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 508 mg/l
 Exposure time: 96 h
 Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 731 mg/l
 Exposure time: 48 h
 Remarks: Based on data from similar materials

Persistence and degradability
Components:

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight \leq 700):

Biodegradability : Result: Not readily biodegradable.
 Biodegradation: 5 %
 Exposure time: 28 d
 Method: OECD Test Guideline 301F

2,4,6-Tris(dimethylaminomethyl)phenol:

Biodegradability : Result: Not readily biodegradable.
 Biodegradation: 4 %

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Exposure time: 28 d
Method: OECD Test Guideline 301D

Bioaccumulative potential**Components:**

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Partition coefficient: n-octanol/water : log Pow: 3.26

2,4,6-Tris(dimethylaminomethyl)phenol:

Partition coefficient: n-octanol/water : log Pow: 0.219

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700))
Class : 9
Packing group : III
Labels : 9

IATA-DGR

UN/ID No. : UN 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
(Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700))
Class : 9
Packing group : III

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Labels : Miscellaneous
 Packing instruction (cargo aircraft) : 956
 Packing instruction (passenger aircraft) : 956
 Environmentally hazardous : yes

IMDG-Code

UN number : UN 3077
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
 (Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700))
 Class : 9
 Packing group : III
 Labels : 9
 EmS Code : F-A, S-F
 Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation
TDG

UN number : UN 3077
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
 (Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700))
 Class : 9
 Packing group : III
 Labels : 9
 ERG Code : 171
 Marine pollutant : yes(Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700))

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

Volatile organic compounds (VOC) content : CANADIAN ENVIRONMENTAL PROTECTION ACT, 1999 - Guidelines for VOC in Consumer Products
 VOC content: 0 % / 0 g/l

The ingredients of this product are reported in the following inventories:

DSL : All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL).

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SECTION 16. OTHER INFORMATION

Full text of other abbreviations

| | | |
|--------------------|---|---|
| ACGIH | : | USA. ACGIH Threshold Limit Values (TLV) |
| CA AB OEL | : | Canada. Alberta, Occupational Health and Safety Code (table 2: OEL) |
| CA BC OEL | : | Canada. British Columbia OEL |
| CA ON OEL | : | Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act. |
| CA QC OEL | : | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
| ACGIH / TWA | : | 8-hour, time-weighted average |
| CA AB OEL / TWA | : | 8-hour Occupational exposure limit |
| CA BC OEL / TWA | : | 8-hour time weighted average |
| CA ON OEL / TWA | : | Time-Weighted Average Limit (TWA) |
| CA QC OEL / TWA EV | : | Time-weighted average exposure value |

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECl - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECl - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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|--|---|---|
| Sources of key data used to compile the Material Safety Data Sheet | : | Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/ |
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| Revision Date | : | 10/27/2021 |
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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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