# SAFETY DATA SHEET

# GENGLAZE EC 2447

| Version | Revision Date: | Date of last issue: 04/27/2023 |
|---|---|---|
| 2.2 | 05/22/2023 | Date of first issue: 04/20/2023 |

## SECTION 1. IDENTIFICATION

| | | |
|---|---|---|
| Product name | : | GENGLAZE EC 2447 |
| Other means of identification | : | No data available |

**Manufacturer or supplier's details**

| | | |
|---|---|---|
| Company name of supplier | : | OMNOVA Solutions Inc., a Synthomer company |
| Address | : | 25435 Harvard Road<br>Beachwood, OH 44122-6201<br>USA |
| Telephone | : | +1 216-682-7000 |
| E-mail address of person responsible for the SDS | : | regulatoryaffairs@synthomer.com |
| Emergency telephone number | : | Canada Local: +1 (703) 741-5970 // Chemtrec Toll Free: +1 (800) 424-9300 // Chemtrec International: +1 (703) 527-3887 |

**Recommended use of the chemical and restrictions on use**

| | | |
|---|---|---|
| Recommended use | : | Coating resin |

## SECTION 2. HAZARDS IDENTIFICATION

**GHS classification in accordance with the Hazardous Products Regulations**

| | | |
|---|---|---|
| Flammable liquids | : | Category 3 |
| Skin irritation | : | Category 2 |
| Eye irritation | : | Category 2A |
| Skin sensitisation | : | Category 1 |
| Carcinogenicity | : | Category 1B |
| Reproductive toxicity | : | Category 2 |
| Specific target organ toxicity - single exposure | : | Category 3 (Respiratory system) |
| Specific target organ toxicity - repeated exposure (Inhalation) | : | Category 1 (ear) |

**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements :

H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H350 May cause cancer.
H361 Suspected of damaging fertility or the unborn child.
H372 Causes damage to organs (ear) through prolonged or repeated exposure if inhaled.

Precautionary statements :

**Prevention:**

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P260 Do not breathe mist or vapours.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
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.
P370 + P378 In case of fire: Use dry sand, dry chemical or alco-

hol-resistant foam to extinguish.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ 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) |
|---|---|---|---|
| styrene | styrene | 100-42-5 | >= 10 - < 30 * |
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid | Bisphenol A-epichlorohydrin copolymer acrylate | 55818-57-0 | >= 10 - < 30 * |
| Acrylated resin** | Acrylated resin | TRADE SECRET** | >= 5 - < 10 * |
| methacrylic acid, monoester with propane-1,2-diol | Hydroxypropyl methacrylate | 27813-02-1 | >= 5 - < 10 * |
| Carbon black | carbon black | 1333-86-4 | >= 1 - < 5 * |
| 2-(2-ethoxyethoxy)ethyl acrylate | Diethylene Glycol Monoethyl Ether Acrylate | 7328-17-8 | >= 1 - < 5 * |

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

** See Section 15 for HMIRA information.

## SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If skin irritation persists, call a physician.

If on skin, rinse well with water.
If on clothes, remove clothes.

| | | |
|---|---|---|
| In case of eye contact | : | Immediately flush eye(s) with plenty of water.<br>Remove contact lenses.<br>Protect unharmed eye.<br>Keep eye wide open while rinsing.<br>If eye irritation persists, consult a specialist. |
| If swallowed | : | Keep respiratory tract clear.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>If symptoms persist, call a physician.<br>Take victim immediately to hospital. |
| Most important symptoms and effects, both acute and delayed | : | Causes skin irritation.<br>May cause an allergic skin reaction.<br>Causes serious eye irritation.<br>May cause respiratory irritation.<br>May cause cancer.<br>Suspected of damaging fertility or the unborn child.<br>Causes damage to organs through prolonged or repeated exposure if inhaled. |
| Notes to physician | : | Treat symptomatically. |

## SECTION 5. FIREFIGHTING MEASURES

| | | |
|---|---|---|
| Suitable extinguishing media | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.<br>Water mist<br>Water spray<br>Foam<br>Alcohol-resistant foam<br>Carbon dioxide (CO2)<br>Dry chemical |
| Unsuitable extinguishing media | : | High volume water jet |
| Specific hazards during firefighting | : | Do not allow run-off from fire fighting to enter drains or water courses. |
| Hazardous combustion products | : | No hazardous combustion products are known |
| Further information | : | Collect contaminated fire extinguishing water separately. This must not be discharged into drains.<br>Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.<br>For safety reasons in case of fire, cans should be stored separately in closed containments.<br>Use a water spray to cool fully closed containers. |
| Special protective equipment for firefighters | : | Wear self-contained breathing apparatus for firefighting if necessary. |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

| | | |
|---|---|---|
| Personal precautions, protective equipment and emergency procedures | : | Use personal protective equipment.<br>Remove all sources of ignition.<br>Evacuate personnel to safe areas.<br>Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. |
| Environmental precautions | : | Prevent product from entering drains.<br>Prevent further leakage or spillage if safe to do so.<br>If the product contaminates rivers and lakes or drains inform respective authorities. |
| Methods and materials for containment and cleaning up | : | Large spills should be collected mechanically (remove by pumping) for disposal.<br>Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). |

## SECTION 7. HANDLING AND STORAGE

| | | |
|---|---|---|
| Advice on protection against fire and explosion | : | Do not spray on a naked flame or any incandescent material.<br>Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).<br>Keep away from open flames, hot surfaces and sources of ignition. |
| Advice on safe handling | : | Avoid formation of aerosol.<br>Do not breathe vapours/dust.<br>Avoid exposure - obtain special instructions before use.<br>Avoid contact with skin and eyes.<br>For personal protection see section 8.<br>Smoking, eating and drinking should be prohibited in the application area.<br>Take precautionary measures against static discharges.<br>Provide sufficient air exchange and/or exhaust in work rooms.<br>Open drum carefully as content may be under pressure.<br>Dispose of rinse water in accordance with local and national regulations.<br>Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.<br><br>Mix thoroughly before use. |
| Conditions for safe storage | : | Keep in properly labelled containers.<br>No smoking.<br>Keep container tightly closed in a dry and well-ventilated place.<br>Containers which are opened must be carefully resealed and kept upright to prevent leakage.<br>Observe label precautions. |

Further information on storage stability : No decomposition if stored and applied as directed.

Do not freeze.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Components with workplace control parameters**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---|---|---|---|---|
| styrene | 100-42-5 | TWA | 20 ppm<br>85 mg/m3 | CA AB OEL |
| | | STEL | 40 ppm<br>170 mg/m3 | CA AB OEL |
| | | TWA | 20 ppm | CA BC OEL |
| | | STEL | 40 ppm | CA BC OEL |
| | | TWA | 35 ppm | CA ON OEL |
| | | STEL | 100 ppm | CA ON OEL |
| | | TWAEV | 50 ppm<br>213 mg/m3 | CA QC OEL |
| | | STEV | 100 ppm<br>426 mg/m3 | CA QC OEL |
| | | TWA | 10 ppm | ACGIH |
| | | STEL | 20 ppm | ACGIH |
| Carbon black | 1333-86-4 | TWA | 3.5 mg/m3 | CA AB OEL |
| | | TWA (Inhalable) | 3 mg/m3 | CA BC OEL |
| | | TWAEV (inhalable dust) | 3 mg/m3 | CA QC OEL |
| | | TWA (Inhalable particulate matter) | 3 mg/m3 | ACGIH |

**Biological occupational exposure limits**

| Components | CAS-No. | Control parameters | Biological specimen | Sampling time | Permissible concentration | Basis |
|---|---|---|---|---|---|---|
| styrene | 100-42-5 | Mandelic acid plus phenylglyoxylic acid | Urine | End of shift (As soon as possible after exposure ceases) | 400 mg/g Creatinine | ACGIH BEI |
| | | Styrene | Urine | End of shift (As soon as possible after exposure ceases) | 40 µg/l | ACGIH BEI |

**Personal protective equipment**

| | | |
|---|---|---|
| Respiratory protection | : | No personal respiratory protective equipment normally required. |
| Hand protection | | |
| Material | : | Nitrile rubber |
| Remarks | : | The suitability for a specific workplace should be discussed with the producers of the protective gloves. |
| Eye protection | : | Eye wash bottle with pure water<br>Tightly fitting safety goggles<br>Wear face-shield and protective suit for abnormal processing problems. |
| Skin and body protection | : | Impervious clothing<br>Choose body protection according to the amount and concentration of the dangerous substance at the work place. |
| Protective measures | : | Ensure that eye flushing systems and safety showers are located close to the working place. |
| Hygiene measures | : | When using do not eat or drink.<br>When using do not smoke.<br>Wash hands before breaks and at the end of workday. |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Appearance | : | viscous |
| Colour | : | black |
| Odour | : | hydrocarbon-like |
| Odour Threshold | : | No data available |
| pH | : | 6.2 - 6.6 |
| Melting point/freezing point | : | No data available |
| Boiling point/boiling range | : | 113 °C |
| Flash point | : | 34 °C |
| Evaporation rate | : | No data available |
| Self-ignition | : | 490 °C |
| Upper explosion limit / Upper | : | 6.1 %(V) |

| | | |
|---|---|---|
| flammability limit | | |
| Lower explosion limit / Lower flammability limit | : | 1.1 %(V) |
| Vapour pressure | : | 399.97 Pa |
| Relative vapour density | : | No data available |
| Relative density | : | 1.26 |
| Density | : | 1.24 g/cm3 (20 °C) |
| Solubility(ies) | | |
| Water solubility | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity | | |
| Viscosity, dynamic | : | No data available |
| Viscosity, kinematic | : | No data available |
| Explosive properties | : | No data available |
| Oxidizing properties | : | No data available |
| Minimum ignition energy | : | Not applicable |

## SECTION 10. STABILITY AND REACTIVITY

| | | |
|---|---|---|
| Reactivity | : | No decomposition if stored and applied as directed. |
| Chemical stability | : | No decomposition if stored and applied as directed. |
| Possibility of hazardous reactions | : | No decomposition if stored and applied as directed.<br>Vapours may form explosive mixture with air. |
| Conditions to avoid | : | Protect from frost, heat and sunlight.<br>Heat, flames and sparks. |
| Incompatible materials | : | Not applicable |
| Hazardous decomposition products | : | No hazardous decomposition products are known. |

## SECTION 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

Not classified based on available information.

**Product:**

| | | |
|---|---|---|
| Acute oral toxicity | : | Acute toxicity estimate: > 2,000 mg/kg<br>Method: Calculation method |
| Acute inhalation toxicity | : | Acute toxicity estimate: > 20 mg/l<br>Exposure time: 4 h<br>Test atmosphere: vapour<br>Method: Calculation method |
| Acute dermal toxicity | : | Acute toxicity estimate: > 2,000 mg/kg<br>Method: Calculation method |

**Components:**

**styrene:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat, male and female): > 5,000 mg/kg<br>GLP: no |
| Acute inhalation toxicity | : | LC50 (Rat): 11.8 mg/l<br>Exposure time: 4 h<br>Test atmosphere: vapour |
| Acute dermal toxicity | : | LD50 (Rat, male and female): > 2,000 mg/kg<br>Method: OECD Test Guideline 402<br>GLP: yes |
| Acute toxicity (other routes of administration) | : | TDLo (Mouse): 600 mg/kg<br>Application Route: No data available<br><br>LD50 (Mouse): 90 mg/kg<br>Application Route: No data available<br><br>LD50 (Mouse): 660 mg/kg<br>Application Route: No data available |

**4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): > 2,000 mg/kg<br>Method: OECD Test Guideline 401<br>GLP: yes |
| Acute inhalation toxicity | : | Remarks: No data available |
| Acute dermal toxicity | : | LD0 (Rat, male and female): > 2,000 mg/kg<br>GLP: yes |

**Acrylated resin:**

| | | |
|---|---|---|
| Acute oral toxicity | : | Remarks: No data available |
| Acute inhalation toxicity | : | Remarks: No data available |
| Acute dermal toxicity | : | Remarks: No data available |

**methacrylic acid, monoester with propane-1,2-diol:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat, male): 11,200 mg/kg<br>Method: OECD Test Guideline 401 |
| Acute inhalation toxicity | : | Remarks: No data available |
| Acute dermal toxicity | : | LD50 (Rabbit, male): > 5,000 mg/kg |

**Carbon black:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat, male and female): > 8,000 mg/kg<br>Method: OECD Test Guideline 401<br>GLP: no |
| Acute inhalation toxicity | : | Remarks: Not classified due to data which are conclusive although insufficient for classification. |
| Acute dermal toxicity | : | Remarks: Not classified due to data which are conclusive although insufficient for classification. |

**2-(2-ethoxyethoxy)ethyl acrylate:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat, male and female): 1,106 mg/kg<br>GLP: no |
| Acute inhalation toxicity | : | Remarks: Not classified due to data which are conclusive although insufficient for classification. |
| Acute dermal toxicity | : | LD50 (Rabbit, male and female): 1,000 - 2,000 mg/kg<br>Method: OECD Test Guideline 402<br>GLP: yes |

**Skin corrosion/irritation**

Causes skin irritation.

**Product:**

| | | |
|---|---|---|
| Remarks | : | May cause skin irritation and/or dermatitis. |

**Components:**

**styrene:**

| | | |
|---|---|---|
| Result | : | Skin irritation |

**Acrylated resin:**

| | | |
|---|---|---|
| Result | : | Skin irritation |

**2-(2-ethoxyethoxy)ethyl acrylate:**

| | | |
|---|---|---|
| Result | : | Skin irritation |

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Product:**

| | | |
|---|---|---|
| Remarks | : | May cause irreversible eye damage. |

**Components:**

**styrene:**

Result : Eye irritation

**Acrylated resin:**

Result : Eye irritation

**methacrylic acid, monoester with propane-1,2-diol:**

Result : Eye irritation

**2-(2-ethoxyethoxy)ethyl acrylate:**

Result : Eye irritation

**Respiratory or skin sensitisation**

**Skin sensitisation**

May cause an allergic skin reaction.

**Respiratory sensitisation**

Not classified based on available information.

**Product:**

Remarks : Causes sensitisation.

**Components:**

**4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid:**

Result : Probability or evidence of skin sensitisation in humans

**methacrylic acid, monoester with propane-1,2-diol:**

Result : Probability or evidence of skin sensitisation in humans

**2-(2-ethoxyethoxy)ethyl acrylate:**

Result : Probability or evidence of skin sensitisation in humans

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

May cause cancer.

**Product:**

Carcinogenicity - Assessment : Possible human carcinogen

**Components:**

**styrene:**

Carcinogenicity - Assess- : Not classifiable as a human carcinogen.

ment

**Reproductive toxicity**

Suspected of damaging fertility or the unborn child.

**Components:**

**styrene:**

| | | |
|---|---|---|
| Reproductive toxicity - Assessment | : | Suspected human reproductive toxicant |

**STOT - single exposure**

May cause respiratory irritation.

**Components:**

**styrene:**

| | | |
|---|---|---|
| Exposure routes | : | Inhalation |
| Target Organs | : | Nose |
| Assessment | : | May cause respiratory irritation. |

**STOT - repeated exposure**

Causes damage to organs (ear) through prolonged or repeated exposure if inhaled.

**Components:**

**styrene:**

| | | |
|---|---|---|
| Exposure routes | : | Inhalation |
| Target Organs | : | ear |
| Assessment | : | Causes damage to organs through prolonged or repeated exposure. |

**Aspiration toxicity**

Not classified based on available information.

**Further information**

**Product:**

| | | |
|---|---|---|
| Remarks | : | Information taken from reference works and the literature.<br>Solvents may degrease the skin. |

## SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Components:**

**styrene:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Pimephales promelas (fathead minnow)): 10 mg/l<br>Exposure time: 96 h<br>Test Type: flow-through test<br>Method: OECD Test Guideline 203<br>GLP: yes |

| | | |
|---|---|---|
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 4.7 mg/l<br>Exposure time: 48 h<br>Test Type: flow-through test<br>Method: OECD Test Guideline 202<br>GLP: yes |
| Toxicity to algae/aquatic plants | : | EC50 (Pseudokirchneriella subcapitata (green algae)): 4.9 mg/l<br>Exposure time: 72 h<br>Test Type: static test<br>GLP: yes<br><br>EC10 (Pseudokirchneriella subcapitata (green algae)): 0.28 mg/l<br>Exposure time: 96 h<br>Test Type: static test<br>GLP: yes |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): 1.01 mg/l<br>Exposure time: 21 d<br>Method: OECD Test Guideline 211<br>GLP: yes |

**4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid:**

| | | |
|---|---|---|
| Toxicity to fish | : | LL50 (Cyprinus carpio (Carp)): > 100 mg/l<br>Exposure time: 96 h<br>Test Type: static test<br>Remarks: No toxicity at the limit of solubility |
| Toxicity to daphnia and other aquatic invertebrates | : | EL50 (Daphnia magna (Water flea)): > 100 mg/l<br>Exposure time: 48 h<br>Test Type: static test<br>Method: OECD Test Guideline 202 |
| Toxicity to algae/aquatic plants | : | EC50 (Raphidocelis subcapitata (freshwater green alga)): 105 mg/l<br>Exposure time: 72 h<br>Test Type: static test<br>Method: OECD Test Guideline 201<br>GLP: yes |
| Toxicity to fish (Chronic toxicity) | : | NOEC (Pimephales promelas (fathead minnow)): 0.25 mg/l<br>Exposure time: 33 d |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): 0.51 mg/l<br>Exposure time: 21 d<br>Method: OECD Test Guideline 211<br>GLP: yes |

**Acrylated resin:**

| | | |
|---|---|---|
| Toxicity to fish | : | Remarks: No data available |
| Toxicity to daphnia and other aquatic invertebrates | : | Remarks: No data available |

| | | |
|---|---|---|
| Toxicity to algae/aquatic plants | : | Remarks: No data available |
| Toxicity to fish (Chronic toxicity) | : | Remarks: No data available |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | Remarks: No data available |

**methacrylic acid, monoester with propane-1,2-diol:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Leuciscus idus (Golden orfe)): 493 mg/l<br>Exposure time: 48 h<br>Test Type: static test<br>Method: DIN 38412<br>GLP: yes |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 143 mg/l<br>Exposure time: 48 h<br>Test Type: semi-static test<br>Method: OECD Test Guideline 202<br>GLP: yes |
| Toxicity to algae/aquatic plants | : | ErC50 (Raphidocelis subcapitata (freshwater green alga)): > 97.2 mg/l<br>Exposure time: 72 h<br>Test Type: static test<br>Method: OECD Test Guideline 201<br>GLP: yes |
| Toxicity to fish (Chronic toxicity) | : | Remarks: No data available |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): 45.2 mg/l<br>Exposure time: 21 d<br>Method: OECD Test Guideline 211<br>GLP: yes |

**Carbon black:**

| | | |
|---|---|---|
| Toxicity to fish | : | NOEC (Danio rerio (zebra fish)): > 1,000 mg/l<br>Exposure time: 96 h<br>Test Type: semi-static test<br>Method: OECD Test Guideline 203<br>GLP: yes |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 100 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202<br>GLP: yes |
| Toxicity to algae/aquatic plants | : | Remarks: No data available |
| Toxicity to fish (Chronic tox- | : | Remarks: No data available |

icity)

| | | |
|---|---|---|
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | Remarks: No data available |

**2-(2-ethoxyethoxy)ethyl acrylate:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Oncorhynchus mykiss (rainbow trout)): > 2.5 mg/l<br>Exposure time: 96 h<br>Test Type: semi-static test<br>Method: OECD Test Guideline 203 |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 90 mg/l<br>Exposure time: 48 h |
| Toxicity to algae/aquatic plants | : | EC50 (algae): 3.2 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201 |
| Toxicity to fish (Chronic toxicity) | : | Remarks: No data available |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | Remarks: No data available |

**Persistence and degradability**

**Components:**

**styrene:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Readily biodegradable. |

**4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Inherently biodegradable. |

**Acrylated resin:**

| | | |
|---|---|---|
| Biodegradability | : | Remarks: No data available |

**methacrylic acid, monoester with propane-1,2-diol:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Readily biodegradable. |

**Carbon black:**

| | | |
|---|---|---|
| Biodegradability | : | Remarks: The methods for determining biodegradability are not applicable to inorganic substances. |

**2-(2-ethoxyethoxy)ethyl acrylate:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Readily biodegradable. |

**Bioaccumulative potential**

**Components:**

**styrene:**

| | | |
|---|---|---|
| Bioaccumulation | : | Bioconcentration factor (BCF): 13.49 |
| Partition coefficient: n-octanol/water | : | log Pow: 0.35 |

**Mobility in soil**

No data available

**Other adverse effects**

**Product:**

| | | |
|---|---|---|
| Additional ecological information | : | Information given is based on data on the components and the ecotoxicology of similar products.<br>An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.<br>Toxic to aquatic life.<br>Harmful to aquatic life with long lasting effects. |

## SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

| | | |
|---|---|---|
| Waste from residues | : | Dispose of wastes in an approved waste disposal facility.<br>The product should not be allowed to enter drains, water courses or the soil.<br>Do not contaminate ponds, waterways or ditches with chemical or used container.<br>Send to a licensed waste management company. |
| Contaminated packaging | : | Empty remaining contents.<br>Dispose of as unused product.<br>Do not re-use empty containers.<br>Do not burn, or use a cutting torch on, the empty drum. |

## SECTION 14. TRANSPORT INFORMATION

**International Regulations**

**UNRTDG**

| | | |
|---|---|---|
| UN number | : | UN 2055 |
| Proper shipping name | : | STYRENE MONOMER, STABILIZED |
| Class | : | 3 |
| Packing group | : | III |
| Labels | : | 3 |

**IATA-DGR**

| | | |
|---|---|---|
| UN/ID No. | : | UN 2055 |
| Proper shipping name | : | Styrene monomer, stabilized |
| Class | : | 3 |
| Packing group | : | III |

| | | |
|---|---|---|
| Labels | : | Flammable Liquids |
| Packing instruction (cargo aircraft) | : | 366 |
| Packing instruction (passenger aircraft) | : | 355 |

**IMDG-Code**

| | | |
|---|---|---|
| UN number | : | UN 2055 |
| Proper shipping name | : | STYRENE MONOMER, STABILIZED |
| Class | : | 3 |
| Packing group | : | III |
| Labels | : | 3 |
| EmS Code | : | F-E, S-D |
| Marine pollutant | : | no |

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

Not applicable for product as supplied.

**National Regulations**

**TDG**

| | | |
|---|---|---|
| UN number | : | UN 2055 |
| Proper shipping name | : | STYRENE MONOMER, STABILIZED |
| Class | : | 3 |
| Packing group | : | III |
| Labels | : | 3 |
| ERG Code | : | 128P |
| Marine pollutant | : | no |

**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

**NPRI Components** : styrene
zinc distearate
Distillates (petroleum), hydro- treated light; Kerosine — unspecified
cobalt bis(2-ethylhexanoate)
acrylic acid
Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha
octanoic acid, chromium salt
1,4-dihydroxybenzene
ethanediol
toluene
ethylbenzene
bisphenol A
benzene
methanol
propylene oxide
1,2-dihydroxybenzene

**Canadian lists**

The following substance(s) is/are subject to a Significant New Activity Notification:

| | |
|---|---|
| 1,4-dihydroxybenzene | 123-31-9 |
| propylene oxide | 75-56-9 |
| 1,2-dihydroxybenzene | 120-80-9 |

**Registration: Trade secret**

| Registration number | Registration |
|---|---|
| 03473436 | Granted on 05/17/2023 |

## SECTION 16. OTHER INFORMATION

**Full text of other abbreviations**

| | | |
|---|---|---|
| ACGIH | : | USA. ACGIH Threshold Limit Values (TLV) |
| ACGIH BEI | : | ACGIH - Biological Exposure Indices (BEI) |
| 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 |
| ACGIH / STEL | : | Short-term exposure limit |
| CA AB OEL / TWA | : | 8-hour Occupational exposure limit |
| CA AB OEL / STEL | : | 15-minute occupational exposure limit |
| CA BC OEL / TWA | : | 8-hour time weighted average |
| CA BC OEL / STEL | : | short-term exposure limit |
| CA ON OEL / TWA | : | Time-Weighted Average Limit (TWA) |
| CA ON OEL / STEL | : | Short-Term Exposure Limit (STEL) |
| CA QC OEL / TWAEV | : | Time-weighted average exposure value |
| CA QC OEL / STEV | : | Short-term 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; KECI - 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 Develop-

ment; 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; TECI - 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

| | | |
|---|---|---|
| Revision Date | : | 05/22/2023 |
| Date format | : | mm/dd/yyyy |

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

CA / EN