# SAFETY DATA SHEET

## 1. Product and Company Identification

| | |
|---|---|
| **Product identifier** | **Thermo-Trap Putty (4371-38)** |
| **Other means of identification** | Not available |
| **Recommended use** | Heat absorbing putty |
| **Recommended restrictions** | None known. |
| **Manufacturer information** | Nu-Calgon<br>2611 Schuetz Road<br>St. Louis, MO 63043 US<br>Phone: 314-469-7000 / 800-554-5499<br>Emergency Phone: 1-800-424-9300 (CHEMTREC) |
| **Supplier** | See above. |

## 2. Hazards Identification

| | |
|---|---|
| **Physical hazards** | Not classified. |
| **Health hazards** | Not classified. |
| **Environmental hazards** | Not classified. |
| **WHMIS 2015 defined hazards** | Not classified |
| **Label elements** | |
| **Hazard symbol** | None. |
| **Signal word** | None. |
| **Hazard statement** | The mixture does not meet the criteria for classification. |
| **Precautionary statement** | |
| **Prevention** | Observe good industrial hygiene practices. |
| **Response** | Wash hands after handling. |
| **Storage** | Store away from incompatible materials. |
| **Disposal** | Dispose of waste and residues in accordance with local authority requirements. |
| **WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)** | None known |
| **WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)** | None known |
| **Hazard(s) not otherwise classified (HNOC)** | None known. |
| **Supplemental information** | Not applicable. |

## 3. Composition/Information on Ingredients

**Mixture**

| Chemical name | Common name and synonyms | CAS number | % |
|---|---|---|---|
| Aluminosilicate Refractory Ceramic Fibers | | 142844-00-6 | 15-40* |

**Composition comments**

Non-hazardous by WHMIS/OSHA criteria

US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.
*CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret.

## 4. First Aid Measures

| | |
|---|---|
| **Inhalation** | If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention. |
| **Skin contact** | Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists. |
| **Eye contact** | Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists. |

| | |
|---|---|
| **Ingestion** | Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious or is convulsing. Obtain medical attention. |
| **Most important symptoms/effects, acute and delayed** | Direct contact with eyes may cause temporary irritation. |
| **Indication of immediate medical attention and special treatment needed** | Treat symptomatically. |
| **General information** | Avoid contact with eyes, skin and clothing. Wash contaminated clothing before reuse. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible). |

## 5. Fire Fighting Measures

| | |
|---|---|
| **Suitable extinguishing media** | Treat for surrounding material. |
| **Unsuitable extinguishing media** | Not available. |
| **Specific hazards arising from the chemical** | During fire, gases hazardous to health may be formed. |
| **Special protective equipment and precautions for firefighters** | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| **Fire-fighting equipment/instructions** | Move containers from fire area if you can do so without risk. |
| **Specific methods** | Use standard firefighting procedures and consider the hazards of other involved materials. |
| **General fire hazards** | No unusual fire or explosion hazards noted. |
| **Hazardous combustion products** | May include and are not limited to: Oxides of carbon. |

## 6. Accidental Release Measures

| | |
|---|---|
| **Personal precautions, protective equipment and emergency procedures** | Keep out of low areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS. |
| **Methods and materials for containment and cleaning up** | Stop leak if you can do so without risk.<br><br>Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water .<br><br>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.<br><br>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. |
| **Environmental precautions** | Avoid discharge into drains, water courses or onto the ground. |

## 7. Handling and Storage

| | |
|---|---|
| **Precautions for safe handling** | Use good industrial hygiene practices in handling this material. Keep out of reach of children. Store in a closed container away from incompatible materials. When using do not eat or drink. Avoid contact with eyes, skin and clothing. |
| **Conditions for safe storage, including any incompatibilities** | Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Keep out of the reach of children. |

## 8. Exposure Controls/Personal Protection

**Occupational exposure limits**

**Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)**

| Components | Type | Value | Form |
|---|---|---|---|
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | TWA | 0.2 fibers/cm3 | Fiber. |
| | | 5 mg/m3 | Total particulate. |
| | | 5 mg/m3 | Fiber, total |

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

| Components | Type | Value | Form |
|---|---|---|---|
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | TWA | 0.2 fibers/cm3 | Fiber. |
| | | 5 mg/m3 | Inhalable fibers. |

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)**

| Components | Type | Value | Form |
|---|---|---|---|
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | TWA | 5 mg/m3 | Inhalable fraction. |

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

| Components | Type | Value | Form |
|---|---|---|---|
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | TWA | 0.5 fibers/ml | Respirable fibers. |
| | | 5 mg/m3 | Inhalable fraction. |

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

| Components | Type | Value | Form |
|---|---|---|---|
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | TWA | 1 fibers/cm3n | Fiber. |
| | | 10 mg/m3 | Total dust. |

**US. NIOSH: Pocket Guide to Chemical Hazards**

| Components | Type | Value | Form |
|---|---|---|---|
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | TWA | 3 fibers/cm3 | Fiber. |
| | | 3 fibers/cm3 | Fibrous dust. |
| | | 5 mg/m3 | Fiber, total |
| | | 5 mg/m3 | fibers, total dust |

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Exposure guidelines** Product is a non respirable form.
The components listed above are inextricably bound and not biologically available.

**Canada - Alberta OELs: Skin designation**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Can be absorbed through the skin. |
| Diethanolamine (CAS 111-42-2) | Can be absorbed through the skin. |

**Canada - British Columbia OELs: Skin designation**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Can be absorbed through the skin. |
| Diethanolamine (CAS 111-42-2) | Can be absorbed through the skin. |

**Canada - Manitoba OELs: Skin designation**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Can be absorbed through the skin. |
| Diethanolamine (CAS 111-42-2) | Can be absorbed through the skin. |

**Canada - Ontario OELs: Skin designation**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Can be absorbed through the skin. |
| Diethanolamine (CAS 111-42-2) | Can be absorbed through the skin. |

**Canada - Quebec OELs: Skin designation**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Can be absorbed through the skin. |
| Diethanolamine (CAS 111-42-2) | Can be absorbed through the skin. |

**Canada - Saskatchewan OELs: Skin designation**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Can be absorbed through the skin. |
| Diethanolamine (CAS 111-42-2) | Can be absorbed through the skin. |

**US ACGIH Threshold Limit Values: Skin designation**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Can be absorbed through the skin. |
| Diethanolamine (CAS 111-42-2) | Can be absorbed through the skin. |

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Can be absorbed through the skin. |

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment**

| | |
|---|---|
| **Eye/face protection** | Safety glasses if eye contact is possible. |
| **Skin protection** | |
| **Hand protection** | Impervious gloves. Confirm with reputable supplier first. |
| **Other** | Wear suitable protective clothing. |
| **Respiratory protection** | No personal respiratory protective equipment normally required. |
| **Thermal hazards** | Not available. |
| **General hygiene considerations** | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. |

## 9. Physical and Chemical Properties

| | |
|---|---|
| **Appearance** | Putty |
| **Physical state** | Liquid. |
| **Form** | Putty |
| **Color** | Blue |
| **Odor** | Not available. |
| **Odor threshold** | Not available. |
| **pH** | 7 |
| **Melting point/freezing point** | Not available. |
| **Initial boiling point and boiling range** | Not available. |
| **Pour point** | Not available. |
| **Specific gravity** | Not available. |
| **Partition coefficient (n-octanol/water)** | Not available. |
| **Flash point** | Not available. |
| **Evaporation rate** | Not available. |
| **Flammability (solid, gas)** | Not applicable. |
| **Upper/lower flammability or explosive limits** | |
| **Flammability limit - lower (%)** | Not available. |
| **Flammability limit - upper (%)** | Not available. |
| **Explosive limit - lower (%)** | Not available. |
| **Explosive limit - upper (%)** | Not available. |
| **Vapor pressure** | Not available. |
| **Vapor density** | Not available. |
| **Relative density** | Not available. |
| **Solubility(ies)** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Not available. |

## 10. Stability and Reactivity

| | |
|---|---|
| **Reactivity** | This product may react with strong oxidizing agents. |
| **Possibility of hazardous reactions** | No dangerous reaction known under conditions of normal use. |
| **Chemical stability** | Material is stable under normal conditions. |
| **Conditions to avoid** | Do not mix with other chemicals. |
| **Incompatible materials** | Acids. Caustics. |
| **Hazardous decomposition products** | May include and are not limited to: Oxides of carbon. |

## 11. Toxicological Information

| | |
|---|---|
| **Routes of exposure** | Eye, Skin contact, Inhalation, Ingestion. |

**Information on likely routes of exposure**

| | |
|---|---|
| **Ingestion** | May cause stomach distress, nausea or vomiting. |
| **Inhalation** | No adverse effects due to inhalation are expected. |
| **Skin contact** | No adverse effects due to skin contact are expected. |
| **Eye contact** | Direct contact with eyes may cause temporary irritation. |
| **Symptoms related to the physical, chemical and toxicological characteristics** | Direct contact with eyes may cause temporary irritation. |

**Information on toxicological effects**

**Acute toxicity** Not available.

| **Product** | **Species** | **Test Results** |
|---|---|---|
| Thermo-Trap Putty (4371-38) (CAS Mixture) | | |
| **Acute** | | |
| *Inhalation* | | |
| LC50 | Rat | 219 mg/l/4h, estimated |
| *Oral* | | |
| LD50 | Mouse | 11000 g/kg, estimated |

| | |
|---|---|
| **Skin corrosion/irritation** | Prolonged skin contact may cause temporary irritation. |
| **Exposure minutes** | Not available. |
| **Erythema value** | Not available. |
| **Oedema value** | Not available. |
| **Serious eye damage/eye irritation** | Direct contact with eyes may cause temporary irritation. |
| **Corneal opacity value** | Not available. |
| **Iris lesion value** | Not available. |
| **Conjunctival reddening value** | Not available. |
| **Conjunctival oedema value** | Not available. |
| **Recover days** | Not available. |

**Respiratory or skin sensitization**

**ACGIH sensitization**

| | |
|---|---|
| Formaldehyde (CAS 50-00-0) | Dermal sensitization<br>Respiratory sensitization |

**Canada - Alberta OELs: Irritant**

| | |
|---|---|
| Acetaldehyde (CAS 75-07-0) | Irritant |
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | Irritant |
| Ethylene glycol (CAS 107-21-1) | Irritant |

**Canada - British Columbia OELs: Respiratory or skin sensitiser**

| | |
|---|---|
| Formaldehyde (CAS 50-00-0) | Capable of causing respiratory, dermal or conjunctival sensitization. |

**Canada - Manitoba OELs Hazard: Dermal sensitization**

| | |
|---|---|
| Formaldehyde (CAS 50-00-0) | Dermal sensitization |

**Canada - Manitoba OELs Hazard: Respiratory sensitization**

| | |
|---|---|
| Formaldehyde (CAS 50-00-0) | Respiratory sensitization |

**Canada - Saskatchewan OELs Hazard Data: Sensitiser**

| | |
|---|---|
| Formaldehyde (CAS 50-00-0) | Sensitizer. |

| | |
|---|---|
| **Respiratory sensitization** | Not available. |
| **Skin sensitization** | This product is not expected to cause skin sensitization. |
| **Mutagenicity** | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| **Carcinogenicity** | Product is a non respirable form.<br>The components listed below are inextricably bound and not biologically available. |

**ACGIH Carcinogens**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | A3 Confirmed animal carcinogen with unknown relevance to humans. |
| Acetaldehyde (CAS 75-07-0) | A2 Suspected human carcinogen. |

| | |
|---|---|
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | A2 Suspected human carcinogen. |
| Diethanolamine (CAS 111-42-2) | A3 Confirmed animal carcinogen with unknown relevance to humans. |
| Ethylene oxide (CAS 75-21-8) | A2 Suspected human carcinogen. |
| Formaldehyde (CAS 50-00-0) | A1 Confirmed human carcinogen. |
| Methyl isobutyl ketone (MIBK) (CAS 108-10-1) | A3 Confirmed animal carcinogen with unknown relevance to humans. |

**Canada - Alberta OELs: Carcinogen category**

| | |
|---|---|
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | Suspected human carcinogen. |
| Ethylene oxide (CAS 75-21-8) | Suspected human carcinogen. |
| Formaldehyde (CAS 50-00-0) | Suspected human carcinogen. |

**Canada - Manitoba OELs: carcinogenicity**

| | |
|---|---|
| 1,4-DIOXANE (CAS 123-91-1) | Confirmed animal carcinogen with unknown relevance to humans. |
| ACETALDEHYDE (CAS 75-07-0) | Suspected human carcinogen. |
| DIETHANOLAMINE, INHALABLE FRACTION AND VAPOR (CAS 111-42-2) | Confirmed animal carcinogen with unknown relevance to humans. |
| ETHYLENE OXIDE (CAS 75-21-8) | Suspected human carcinogen. |
| FORMALDEHYDE (CAS 50-00-0) | Confirmed human carcinogen. |
| METHYL ISOBUTYL KETONE (CAS 108-10-1) | Confirmed animal carcinogen with unknown relevance to humans. |
| REFRACTORY CERAMIC FIBERS (CAS 142844-00-6) | Suspected human carcinogen. |

**Canada - Quebec OELs: Carcinogen category**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Detected carcinogenic effect in animals. |
| Acetaldehyde (CAS 75-07-0) | Detected carcinogenic effect in animals. |
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | Detected carcinogenic effect in animals. |
| Ethylene oxide (CAS 75-21-8) | Suspected carcinogenic effect in humans. |
| Formaldehyde (CAS 50-00-0) | Suspected carcinogenic effect in humans. |

**IARC Monographs. Overall Evaluation of Carcinogenicity**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Volume 11, Supplement 7, Volume 71 - 2B Possibly carcinogenic to humans. |
| Acetaldehyde (CAS 75-07-0) | Volume 36, Supplement 7, Volume 71 - 2B Possibly carcinogenic to humans. |
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | Volume 43, Volume 81 - 2B Possibly carcinogenic to humans. |
| Diethanolamine (CAS 111-42-2) | Volume 77, Volume 101 - 2B Possibly carcinogenic to humans. |
| Ethylene oxide (CAS 75-21-8) | Volume 97, Volume 100F 1 Carcinogenic to humans. |
| Formaldehyde (CAS 50-00-0) | Volume 88, Volume 100F 1 Carcinogenic to humans. |
| Methyl isobutyl ketone (MIBK) (CAS 108-10-1) | Volume 101 - 2B Possibly carcinogenic to humans. |
| White mineral oil (petroleum) (CAS 8042-47-5) | Volume 33, Supplement 7 - 3 Not classifiable as to carcinogenicity to humans. |

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

1,4-Dioxane (CAS 123-91-1)
Acetaldehyde (CAS 75-07-0)
Diethanolamine (CAS 111-42-2)
Ethylene oxide (CAS 75-21-8)
Formaldehyde (CAS 50-00-0)
Methyl isobutyl ketone (MIBK) (CAS 108-10-1)

**US NTP Report on Carcinogens: Anticipated carcinogen**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Reasonably Anticipated to be a Human Carcinogen. |
| Acetaldehyde (CAS 75-07-0) | Reasonably Anticipated to be a Human Carcinogen. |

**US NTP Report on Carcinogens: Known carcinogen**

| | |
|---|---|
| Ethylene oxide (CAS 75-21-8) | Known To Be Human Carcinogen. |
| Formaldehyde (CAS 50-00-0) | Known To Be Human Carcinogen. |

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

| | |
|---|---|
| Ethylene oxide (CAS 75-21-8) | Cancer |
| Formaldehyde (CAS 50-00-0) | Cancer |

| | |
|---|---|
| **Reproductive toxicity** | This product is not expected to cause reproductive or developmental effects. |
| **Teratogenicity** | Not available. |
| **Specific target organ toxicity - single exposure** | Not classified. |
| **Specific target organ toxicity - repeated exposure** | Not classified. |
| **Aspiration hazard** | Not available. |
| **Chronic effects** | The finished product is not expected to have chronic health effects. |

## 12. Ecological Information

| | |
|---|---|
| **Ecotoxicity** | Not available. |
| **Persistence and degradability** | Not available. |
| **Bioaccumulative potential** | Not available. |
| **Mobility in soil** | Not available. |
| **Mobility in general** | Not available. |
| **Other adverse effects** | Not available. |

## 13. Disposal Considerations

| | |
|---|---|
| **Disposal instructions** | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. |
| **Local disposal regulations** | Dispose in accordance with all applicable regulations. |
| **Hazardous waste code** | The waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| **Waste from residues / unused products** | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| **Contaminated packaging** | Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. |

## 14. Transport Information

| | |
|---|---|
| **Transport of Dangerous Goods (TDG) Proof of Classification** | Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below. |

**U.S. Department of Transportation (DOT)**

Not regulated as dangerous goods.

**Transportation of Dangerous Goods (TDG - Canada)**

Not regulated as dangerous goods.

## 15. Regulatory Information

**Canadian federal regulations** This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

**Canada CEPA Schedule I: Listed substance**

| | |
|---|---|
| Acetaldehyde (CAS 75-07-0) | Listed. |
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | Listed. |
| Ethylene oxide (CAS 75-21-8) | Listed. |
| Formaldehyde (CAS 50-00-0) | Listed. |

**Canada DSL Challenge Substances: Listed substance**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Listed. |

**Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number**

| | |
|---|---|
| Formaldehyde (CAS 50-00-0) | 1 TONNES |
| Methyl isobutyl ketone (MIBK) (CAS 108-10-1) | 1 TONNES |
| White mineral oil (petroleum) (CAS 8042-47-5) | 1 TONNES |

**Canada Priority Substances List (Second List): Listed substance**

| | |
|---|---|
| Acetaldehyde (CAS 75-07-0) | Listed. |
| Ethylene glycol (CAS 107-21-1) | Listed. |
| Ethylene oxide (CAS 75-21-8) | Listed. |
| Formaldehyde (CAS 50-00-0) | Listed. |

**Export Control List (CEPA 1999, Schedule 3)**

| | |
|---|---|
| Ethylene oxide (CAS 75-21-8) | Substance subject to notification or consent. |

**Greenhouse Gases**

Not listed.

**Precursor Control Regulations**

Not regulated.

**WHMIS 2015 Exemptions** Not applicable

**US federal regulations** This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All chemicals used are on the TSCA inventory.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

| | |
|---|---|
| Acetaldehyde (CAS 75-07-0) | 0.1 % One-Time Export Notification only. |
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | 0.1 % One-Time Export Notification only. |

**CERCLA Hazardous Substance List (40 CFR 302.4)**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Listed. |
| Acetaldehyde (CAS 75-07-0) | Listed. |
| Diethanolamine (CAS 111-42-2) | Listed. |
| Ethylene glycol (CAS 107-21-1) | Listed. |
| Ethylene oxide (CAS 75-21-8) | Listed. |
| Formaldehyde (CAS 50-00-0) | Listed. |
| Methyl isobutyl ketone (MIBK) (CAS 108-10-1) | Listed. |

**US EPCRA Section 304 Extremely Haz. Subs. & CERCLA Haz. Subs.: Section 304 EHS reportable quantity**

| | |
|---|---|
| Ethylene oxide (CAS 75-21-8) | 10 LBS |
| Formaldehyde (CAS 50-00-0) | 100 LBS |

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

| | |
|---|---|
| Ethylene oxide (CAS 75-21-8) | Cancer |
| Formaldehyde (CAS 50-00-0) | Cancer |
| Ethylene oxide (CAS 75-21-8) | Reproductive toxicity |
| Formaldehyde (CAS 50-00-0) | Skin sensitization |
| Ethylene oxide (CAS 75-21-8) | Mutagenicity |
| Formaldehyde (CAS 50-00-0) | Respiratory sensitization |
| Ethylene oxide (CAS 75-21-8) | Central nervous system |
| Formaldehyde (CAS 50-00-0) | Eye irritation |
| Ethylene oxide (CAS 75-21-8) | Skin sensitization |
| Formaldehyde (CAS 50-00-0) | Skin irritation |
| Ethylene oxide (CAS 75-21-8) | Skin irritation |
| Formaldehyde (CAS 50-00-0) | respiratory tract irritation |
| Ethylene oxide (CAS 75-21-8) | Eye irritation |
| Formaldehyde (CAS 50-00-0) | Acute toxicity |
| Ethylene oxide (CAS 75-21-8) | respiratory tract irritation |
| Formaldehyde (CAS 50-00-0) | Flammability |
| Ethylene oxide (CAS 75-21-8) | Acute toxicity |
| | Flammability |

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

| | |
|---|---|
| **Hazard categories** | Immediate Hazard - No<br>Delayed Hazard - No<br>Fire Hazard - No<br>Pressure Hazard - No<br>Reactivity Hazard - No |
| **SARA 302 Extremely hazardous substance** | No |
| **SARA 311/312 Hazardous chemical** | No |

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

1,4-Dioxane (CAS 123-91-1)
Acetaldehyde (CAS 75-07-0)
Diethanolamine (CAS 111-42-2)
Ethylene glycol (CAS 107-21-1)
Ethylene oxide (CAS 75-21-8)
Formaldehyde (CAS 50-00-0)
Methyl isobutyl ketone (MIBK) (CAS 108-10-1)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Acetaldehyde (CAS 75-07-0)
Ethylene oxide (CAS 75-21-8)
Formaldehyde (CAS 50-00-0)

**US state regulations**

**US - California Hazardous Substances (Director's): Listed substance**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Listed. |
| Acetaldehyde (CAS 75-07-0) | Listed. |
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | Listed. |
| Diethanolamine (CAS 111-42-2) | Listed. |

| | |
|---|---|
| Ethylene glycol (CAS 107-21-1) | Listed. |
| Ethylene oxide (CAS 75-21-8) | Listed. |
| Formaldehyde (CAS 50-00-0) | Listed. |
| Methyl isobutyl ketone (MIBK) (CAS 108-10-1) | Listed. |
| White mineral oil (petroleum) (CAS 8042-47-5) | Listed. |

**US - Illinois Chemical Safety Act: Listed substance**

1,4-Dioxane (CAS 123-91-1)
Acetaldehyde (CAS 75-07-0)
Diethanolamine (CAS 111-42-2)
Ethylene glycol (CAS 107-21-1)
Ethylene oxide (CAS 75-21-8)
Formaldehyde (CAS 50-00-0)
Methyl isobutyl ketone (MIBK) (CAS 108-10-1)

**US - Louisiana Spill Reporting: Listed substance**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Listed. |
| Acetaldehyde (CAS 75-07-0) | Listed. |
| Diethanolamine (CAS 111-42-2) | Listed. |
| Ethylene glycol (CAS 107-21-1) | Listed. |
| Ethylene oxide (CAS 75-21-8) | Listed. |
| Formaldehyde (CAS 50-00-0) | Listed. |
| Methyl isobutyl ketone (MIBK) (CAS 108-10-1) | Listed. |

**US - Minnesota Haz Subs: Listed substance**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Listed. |
| Acetaldehyde (CAS 75-07-0) | Listed. |
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | Listed. |
| Diethanolamine (CAS 111-42-2) | Listed. |
| Ethylene glycol (CAS 107-21-1) | Listed. |
| Ethylene oxide (CAS 75-21-8) | Listed. |
| Formaldehyde (CAS 50-00-0) | Listed. |
| Methyl isobutyl ketone (MIBK) (CAS 108-10-1) | Listed. |
| White mineral oil (petroleum) (CAS 8042-47-5) | Listed. |

**US - New Jersey RTK - Substances: Listed substance**

1,4-Dioxane (CAS 123-91-1)
Acetaldehyde (CAS 75-07-0)
Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6)
Diethanolamine (CAS 111-42-2)
Ethylene glycol (CAS 107-21-1)
Ethylene oxide (CAS 75-21-8)
Formaldehyde (CAS 50-00-0)
Methyl isobutyl ketone (MIBK) (CAS 108-10-1)

**US - North Carolina Toxic Air Pollutants: Listed substance**

1,4-Dioxane (CAS 123-91-1)
Acetaldehyde (CAS 75-07-0)
Ethylene oxide (CAS 75-21-8)
Formaldehyde (CAS 50-00-0)
Methyl isobutyl ketone (MIBK) (CAS 108-10-1)

**US - Pennsylvania RTK - Hazardous Substances: Special hazard**

1,4-Dioxane (CAS 123-91-1)
Ethylene oxide (CAS 75-21-8)
Formaldehyde (CAS 50-00-0)

**US - Texas Effects Screening Levels: Listed substance**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Listed. |
| Acetaldehyde (CAS 75-07-0) | Listed. |
| Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6) | Listed. |
| Diethanolamine (CAS 111-42-2) | Listed. |
| Ethylene glycol (CAS 107-21-1) | Listed. |
| Ethylene oxide (CAS 75-21-8) | Listed. |
| Formaldehyde (CAS 50-00-0) | Listed. |
| Methyl isobutyl ketone (MIBK) (CAS 108-10-1) | Listed. |
| White mineral oil (petroleum) (CAS 8042-47-5) | Listed. |

**US - Washington Chemical of High Concern to Children: Listed substance**

1,4-Dioxane (CAS 123-91-1)
Acetaldehyde (CAS 75-07-0)
Ethylene glycol (CAS 107-21-1)
Formaldehyde (CAS 50-00-0)

**US. Massachusetts RTK - Substance List**

1,4-Dioxane (CAS 123-91-1)
Acetaldehyde (CAS 75-07-0)
Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6)
Diethanolamine (CAS 111-42-2)
Ethylene glycol (CAS 107-21-1)
Ethylene oxide (CAS 75-21-8)
Formaldehyde (CAS 50-00-0)
Methyl isobutyl ketone (MIBK) (CAS 108-10-1)
White mineral oil (petroleum) (CAS 8042-47-5)

**US. New Jersey Worker and Community Right-to-Know Act**

1,4-Dioxane (CAS 123-91-1)
Acetaldehyde (CAS 75-07-0)
Diethanolamine (CAS 111-42-2)
Ethylene glycol (CAS 107-21-1)
Ethylene oxide (CAS 75-21-8)
Formaldehyde (CAS 50-00-0)
Methyl isobutyl ketone (MIBK) (CAS 108-10-1)

**US. Pennsylvania Worker and Community Right-to-Know Law**

1,4-Dioxane (CAS 123-91-1)
Acetaldehyde (CAS 75-07-0)
Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6)
Diethanolamine (CAS 111-42-2)
Ethylene glycol (CAS 107-21-1)
Ethylene oxide (CAS 75-21-8)
Formaldehyde (CAS 50-00-0)
Methyl isobutyl ketone (MIBK) (CAS 108-10-1)
White mineral oil (petroleum) (CAS 8042-47-5)

**US. Rhode Island RTK**

1,4-Dioxane (CAS 123-91-1)
Acetaldehyde (CAS 75-07-0)
Aluminosilicate Refractory Ceramic Fibers (CAS 142844-00-6)
Diethanolamine (CAS 111-42-2)
Ethylene glycol (CAS 107-21-1)
Ethylene oxide (CAS 75-21-8)
Formaldehyde (CAS 50-00-0)
Methyl isobutyl ketone (MIBK) (CAS 108-10-1)
White mineral oil (petroleum) (CAS 8042-47-5)

**US. California Proposition 65**

**WARNING:** This product can expose you to chemicals including ethylene oxide, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

| | |
|---|---|
| 1,4-Dioxane (CAS 123-91-1) | Listed: January 1, 1988 |
| Acetaldehyde (CAS 75-07-0) | Listed: April 1, 1988 |
| Diethanolamine (CAS 111-42-2) | Listed: June 22, 2012 |
| Ethylene oxide (CAS 75-21-8) | Listed: July 1, 1987 |
| Formaldehyde (CAS 50-00-0) | Listed: January 1, 1988 |
| Methyl isobutyl ketone (MIBK) (CAS 108-10-1) | Listed: November 4, 2011 |

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

| | |
|---|---|
| Ethylene glycol (CAS 107-21-1) | Listed: June 19, 2015 |
| Ethylene oxide (CAS 75-21-8) | Listed: August 7, 2009 |
| Methyl isobutyl ketone (MIBK) (CAS 108-10-1) | Listed: March 28, 2014 |

**US - California Proposition 65 - CRT: Listed date/Female reproductive toxin**

| | |
|---|---|
| Ethylene oxide (CAS 75-21-8) | Listed: February 27, 1987 |

**US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**

| | |
|---|---|
| Ethylene oxide (CAS 75-21-8) | Listed: August 7, 2009 |

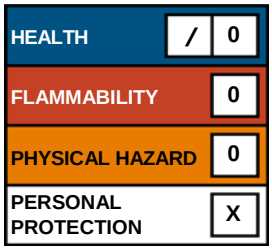
**Inventory status**

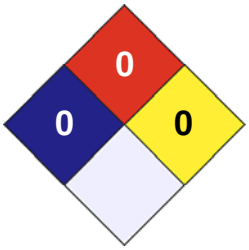
| Country(s) or region | Inventory name | On inventory (yes/no)* |
|---|---|---|
| Canada | Domestic Substances List (DSL) | No |
| Canada | Non-Domestic Substances List (NDSL) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | No |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

## 16. Other Information

| LEGEND | |
|---|---|
| Severe | 4 |
| Serious | 3 |
| Moderate | 2 |
| Slight | 1 |
| Minimal | 0 |




**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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