## Section 1 - PRODUCT AND COMPANY IDENTIFICATION

**Material Name**
Wood Treated with FlamePro
**Trade Names**
FlamePro treated wood
**Chemical Family**
Treated wood
**Product Use**
Wood that has been treated with FlamePro
**Restrictions on Use**
None known.
**Details of the supplier of the safety data sheet**
Customers of Koppers Performance Chemicals Inc.

| | |
|---|---|
| **Company name** | **Culpeper Wood Preservers** |
| **Address** | 15487 Braggs Corner Road<br>Culpeper, VA 22701 |
| **Telephone number** | (540) 825-5200 |
| **Emergency phone number** | CHEMTREC: 800-424-9300 |

## Section 2 - HAZARDS IDENTIFICATION

**Classification in accordance with paragraph (d) of 29 CFR 1910.1200.**
Combustible Dust
Skin Corrosion/Irritation - Category 2
Serious Eye Damage/Eye Irritation - Category 2A
Carcinogenicity - Category 1A
Reproductive Toxicity - Category 1B
Specific target organ toxicity - Single exposure - Category 3 (Respiratory system)
**GHS Label Elements**
**Symbol(s)**

**Signal Word**
Danger
**Hazard Statement(s)**
May form combustible dust concentrations in air.
Causes skin irritation.
Causes serious eye irritation.
May cause cancer.
May damage fertility or the unborn child.
May cause respiratory irritation.

**Precautionary Statement(s)**
**Prevention**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
**Response**
IF exposed or concerned: Get medical advice/attention.
IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.
Call a POISON CENTER or doctor if you feel unwell.
Specific treatment (see label).
**Storage**
Store in a well-ventilated place.
**Disposal**
Dispose of contents/container in accordance with local/regional/national/international regulations.
**Other Hazards**
None known.

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| CAS | Component Name | Percent |
|---|---|---|
| N/A | Wood/Wood dust | 93-99 |
| Proprietary | Proprietary Ingredient #1 | 1-4 |
| Proprietary | Proprietary Ingredient #2 | 0.25-2 |
| 10043-35-3 | Boric acid ($H_3BO_3$) | 0.25-1 |

Depending on the additives applied to the treating solution, this wood may also contain <0.1% of mold inhibitors and/or <0.1% of a colorant. The chemical identity and/or percentage of composition is being withheld as a trade secret.

## Section 4 - FIRST AID MEASURES

**Inhalation**
Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately. Some species may cause allergic respiratory reactions with asthma-like symptoms in sensitized individuals.
**Skin**
Take off contaminated clothing. Wash skin thoroughly with soap and water. Seek medical attention. Prolonged contact with treated wood and/or treated wood dust, especially when freshly treated at the plant, may cause irritation to the skin. Abrasive handling or rubbing of the treated wood may increase skin irritation. Some wood species, regardless of treatment, may cause dermatitis or allergic skin reactions in sensitized individuals.

**Eyes**
DO NOT rub eyes. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Then get immediate medical attention.

**Ingestion**
Rinse mouth. If swallowed, get medical attention.

**Most Important Symptoms/Effects**

**Acute**
Causes respiratory tract irritation, skin irritation, eye irritation, allergic reactions. WOOD DUST: May cause nasal dryness, irritation and mucostasis. Coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported. Depending on wood species may cause respiratory sensitization and/or irritation. Symptoms can include irritation, redness, scratching of the cornea, and tearing. May cause eczema-like skin disorders (dermatitis). Airborne treated or untreated wood dust may cause nose, throat, or lung irritation and other respiratory effects.

**Delayed**
May cause cancer by inhalation. May damage fertility or the unborn child.

**Indication of any immediate medical attention and special treatment needed**
Treat symptomatically. May aggravate respiratory ailments such as asthma and bronchitis.

## Section 5 - FIRE FIGHTING MEASURES

**Extinguishing Media**

**Suitable Extinguishing Media**
Carbon dioxide, regular foam, dry chemical, water spray, or water fog.

**Unsuitable Extinguishing Media**
Do not scatter spilled material with high-pressure water streams.

**Special Hazards Arising from the Chemical**
Combustible dust. May form combustible dust concentrations in air. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Depending on moisture content, and more importantly, particle diameter and airborne concentration, wood dust in a contained area may explode in the presence of an ignition source. Wood dust may similarly deflagrate (combustion without detonation like an explosion) if ignited in an open or loosely contained area. An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the LEL for wood dusts. Reference NFPA Standards- 654 and 664 for guidance.

**Hazardous Combustion Products**
Oxides of carbon, oxides of nitrogen.

**Fire Fighting Measures**
Wet down with water to reduce likelihood of ignition or dispersion. Move material from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Keep unnecessary people away, isolate hazard area and deny entry. The presence of the fire-retardant chemical in treated wood may reduce the flammability hazard to some extent.

**Special Protective Equipment and Precautions for Firefighters**
Wear full protective firefighting gear including self-contained breathing apparatus (SCBA) for protection against possible exposure.

## Section 6 - ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures**
Eliminate all sources of ignition. Wear personal protective clothing and equipment, see Section 8. Avoid dust generation and accumulation. Avoid dust formation. Avoid breathing dust.

**Methods and Materials for Containment and Cleaning Up**
Collect material in appropriate container for disposal. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Collect using a vacuum cleaner with a HEPA filter or wet and scoop up dry spills. Dust

deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid sweeping spilled dry material. If sweeping of a contaminated area is necessary, use a dust suppressant agent. Eliminate all sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry.

**Environmental Precautions**

Avoid release to the environment.

## Section 7 - HANDLING AND STORAGE

**Precautions for Safe Handling**

Avoid breathing dust. Avoid contact with skin and eyes. Wash thoroughly after handling. Wear respiratory protection. Contaminated work clothing must not be allowed out of the workplace. Use only outdoors or in a well-ventilated area. Wear protective gloves/clothing and eye/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Dry wood dust material is defined as having a water content less than 25% by weight. Sweep or vacuum but avoid generating dust. Avoid working with freshly treated wood. Do not burn treated wood. Gently moisten dust before it is collected. Clothing should be removed and replaced if it becomes wet due to contact with freshly treated wood.

**Conditions for Safe Storage, Including any Incompatibilities**

Store in a well-ventilated place.

Store and handle in accordance with all current regulations and standards. Avoid heat, flames, sparks and other sources of ignition. Store containers in a cool, dry, well-ventilated place. Store away from incompatible materials (see Section 10, Stability and Reactivity).

**Incompatible Materials**

strong oxidizing agents, reducing agents.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

**Component Exposure Limits**

| | |
|---|---|
| **Wood/Wood dust** | **N/A** |
| ACGIH: | 1 mg/m3 TWA Inhalable fraction |
| NIOSH: | 1 mg/m3 TWA dust |
| OSHA (US): | 5 mg/m3 PEL (respirable dust); 15 mg/m3 PEL (total fraction) |
| **Boric acid (H3BO3)** | **10043-35-3** |
| ACGIH: | 2 mg/m3 TWA inhalable particulate matter |
| | 6 mg/m3 STEL inhalable particulate matter |

**ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)**

There are no biological limit values for any of this product's components.

**Engineering Controls**

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust or process enclosure ventilation system. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Ensure compliance with applicable exposure limits.

**Individual Protection Measures, such as Personal Protective Equipment**

**Eye/face protection**

Wear safety glasses with side shields or chemical safety goggles.

**Skin Protection**

Wear appropriate work clothing. Wear fire/flame resistant/retardant clothing. Refer to NFPA 2112, Standard on Flame-Resistant Garments for Protection of Industrial Personnel Against Flash Fire and NFPA 2113, Standard on the Selection, Use, Care and Maintenance of Flame-Resistant Garments for Protection of Industrial Personnel Against Short-duration Thermal Exposures from Fire (2015).

**Respiratory Protection**

If engineering controls do not maintain airborne concentrations to a negligible level, an approved respirator must be worn. A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

**Glove Recommendations**

Wear general purpose work gloves: flame-resistant.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|---|---|---|
| **Appearance** | brown solid | **Physical State** | solid |
| **Odor** | Wood odor | **Color** | brown |
| **Odor Threshold** | Not available | **pH** | Not applicable |
| **Melting Point** | Not applicable | **Boiling Point** | Not applicable |
| **Boiling Point Range** | Not available | **Freezing point** | Not applicable |
| **Evaporation Rate** | Not applicable | **Flammability (solid, gas)** | Combustible dust |
| **Autoignition Temperature** | Not available | **Flash Point** | Not available |
| **Lower Explosive Limit** | Not available | **Decomposition temperature** | Not available |
| **Upper Explosive Limit** | Not available | **Vapor Pressure** | Not applicable |
| **Vapor Density (air=1)** | Not applicable | **Specific Gravity (water=1)** | Not available |
| **Water Solubility** | (Insoluble) | **Partition coefficient: n-octanol/water** | Not available |
| **Viscosity** | Not applicable | **Kinematic viscosity** | Not available |
| **Solubility (Other)** | Not available | **Density** | Not available |
| **Physical Form** | solid | **Molecular Weight** | Not available |

**Other Information**

No additional information is available.

## Section 10 - STABILITY AND REACTIVITY

**Reactivity**

No reactivity hazard is expected.

**Chemical Stability**
Stable at normal temperatures and pressure.
**Possibility of Hazardous Reactions**
Will not polymerize.
**Conditions to Avoid**
Avoid heat, flames, sparks and other sources of ignition. Avoid accumulation of airborne dusts. Avoid contact with incompatible materials.
**Incompatible Materials**
strong oxidizing agents, reducing agents.
**Hazardous decomposition products**
oxides of carbon, oxides of nitrogen, aliphatic aldehydes, Polycyclic aromatic hydrocarbons.

## Section 11 - TOXICOLOGICAL INFORMATION

**Information on Likely Routes of Exposure**
**Inhalation**
May cause respiratory irritation, allergic reactions, nasal cancer. WOOD DUST: Dust may be irritating to the nose and throat. Prolonged exposure to wood dusts by inhalation has been reported to be associated with nasal and paranasal cancer. May cause nasal dryness, irritation and mucostasis. Coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported. Depending on wood species may cause respiratory sensitization and/or irritation.
**Skin Contact**
Causes irritation, allergic reactions. Skin contact with wood dusts may cause erythema, blistering, and sometimes erosion and secondary infections occur. May cause eczema-like skin disorders (dermatitis).
**Eye Contact**
Causes serious eye irritation. Symptoms can include irritation, redness, scratching of the cornea, and tearing.
**Ingestion**
Ingestion of harmful amounts is unlikely. Ingestion of dusts generated during working operations may cause nausea and vomiting. Certain species of wood and their dusts may contain natural toxins, which can have adverse effects in humans.
**Acute and Chronic Toxicity**
**Component Analysis - LD50/LC50**
The components of this material have been reviewed in various sources and the following selected endpoints are published:
**Proprietary Ingredient #1 (Proprietary)**
Oral LD50 Rat >2000 mg/kg
Dermal LD50 Rabbit >5000 mg/kg
**Proprietary Ingredient #2 (Proprietary)**
Oral LD50 Rat 5750 mg/kg
Dermal LD50 Rabbit >7940 mg/kg
**Boric acid (H3BO3) (10043-35-3)**
Oral LD50 Rat 2660 mg/kg
Dermal LD50 Rabbit >2000 mg/kg
Inhalation LC50 Rat >0.16 mg/L 4 h (no deaths occurred)
**Product Toxicity Data**
**Acute Toxicity Estimate**

| | |
|---|---|
| Dermal | > 2000 mg/kg |
| Oral | > 2000 mg/kg |

**Immediate Effects**
Causes respiratory tract irritation, skin irritation, eye irritation, allergic reactions. May cause nasal dryness, irritation and mucostasis. Coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported. Depending on wood species may cause respiratory sensitization and/or irritation. Symptoms can include irritation, redness, scratching of the cornea, and tearing. May cause eczema-like skin disorders (dermatitis). Airborne treated or untreated wood dust may cause nose, throat, or lung irritation and other respiratory effects.

**Delayed Effects**
May cause allergic reactions, nasal cancer. Prolonged or repeated inhalation of wood dusts may cause recurrent bronchitis. Prolonged exposure to wood dusts by inhalation has been reported to be associated with nasal and paranasal cancer. Chronic exposure to wood dusts can result in pneumonitis, and coughing, wheezing, fever and the other signs and symptoms associated with chronic bronchitis.

**Irritation/Corrosivity Data**
Causes skin irritation, eye irritation, respiratory tract irritation.

**Respiratory Sensitization**
Prolonged or repeated exposure may result in hypersensitivity.

**Dermal Sensitization**
Repeated exposure may result in contact or sensitization dermatitis.

**Component Carcinogenicity**

| **Wood/Wood dust** | **N/A** |
|---|---|
| IARC: | Monograph 100C [2012]; Monograph 62 [1995] (related to Wood dust, all soft and hard woods) (Group 1 (carcinogenic to humans)) |
| NTP: | Known Human Carcinogen (related to Wood dust, all soft and hard woods) |
| DFG: | Category 3B (could be carcinogenic for man; except beech and oak wood dust) (related to Wood dust, all soft and hard woods) |
| OSHA: | Present (related to Wood dust, all soft and hard woods) |
| NIOSH: | potential occupational carcinogen (related to Wood dust, all soft and hard woods) |
| **Boric acid ($H_3BO_3$)** | **10043-35-3** |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |

May cause cancer by inhalation. Untreated wood dust or saw dust: The International Agency for Research on Cancer (IARC) classifies untreated wood dust as a Group I human carcinogen. The classification is based primarily on IARC's evaluation of increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with occupational exposures of untreated wood dust. Epidemiological studies have been reported on carcinogenic risks of employment in the furniture making industry, the carpentry industry, and the lumber and sawmill industry. IARC has reviewed these studies and reports that there is sufficient evidence that nasal carcinomas have been caused by employment in the furniture-making industry where the excess risk is associated with exposure to untreated wood dust or sawdust from hardwood species. IARC concluded that epidemiological data are not sufficient to make a definite assessment of the carcinogenic risk of employment as a carpenter or worker in a lumber mill or sawmill.

**Germ Cell Mutagenicity**
No data available.

**Tumorigenic Data**
No data available

**Reproductive Toxicity**
May damage fertility or the unborn child.
**Specific Target Organ Toxicity - Single Exposure**
respiratory system
**Specific Target Organ Toxicity - Repeated Exposure**
No target organs identified.
**Aspiration hazard**
No data available.
**Medical Conditions Aggravated by Exposure**
respiratory disorders, skin disorders and allergies

## Section 12 - ECOLOGICAL INFORMATION

**Component Analysis - Aquatic Toxicity**

| **Proprietary Ingredient #1** | **Proprietary** |
|---|---|
| Fish: | LC50 96 h Oncorhynchus mykiss 26.5 mg/L; LC50 96 h Oncorhynchus mykiss 24.8 - 29.4 mg/L [flow-through]; LC50 96 h Pimephales promelas 3.3 mg/L; LC50 96 h Pimephales promelas 33 mg/L [static] |
| **Boric acid ($H_3BO_3$)** | **10043-35-3** |
| Invertebrate: | EC50 48 h Daphnia magna 115 - 153 mg/L EPA |

**Persistence and Degradability**
No data available.
**Bioaccumulative Potential**
No data available.
**Mobility**
insoluble in water
**Other Toxicity**
No data available.

## Section 13 - DISPOSAL CONSIDERATIONS

**Disposal Methods**
Dispose in accordance with all applicable regulations.
**Component Waste Numbers**
The U.S. EPA has not published waste numbers for this product's components.

## Section 14 - TRANSPORT INFORMATION

**US DOT Information:**
**UN/NA #:** Not regulated.

**IATA Information:**
**UN#:** Not regulated.

**IMDG Information:**
**UN#:** Not regulated.

**International Bulk Chemical Code**
This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

| | |
|---|---|
| **Proprietary Ingredient #1** | **Proprietary** |
| IBC Code: | Category Z (solution) |

**Further information**
Component Marine Pollutants This material does not contain any chemicals listed on the Hazardous Materials Table required by US DOT to be identified as a marine pollutant.

## Section 15 - REGULATORY INFORMATION

**U.S. Federal Regulations**
None of this product's components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.
**SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories**
Combustible Dust; Carcinogenicity; Reproductive Toxicity; Skin Corrosion/Irritation; Serious Eye Damage/Eye Irritation; Specific Target Organ Toxicity
**U.S. State Regulations**
The following components appear on one or more of the following state hazardous substances lists:

| Component | CAS | CA | MA | MN | NJ | PA |
|---|---|---|---|---|---|---|
| **Wood/Wood dust** | **N/A** | No | No | Yes | Yes | No |

**The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):**

⚠ **WARNING**: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov/wood.

**Canada Regulations**
**Canadian WHMIS Ingredient Disclosure List (IDL)**
Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

| | |
|---|---|
| **Boric acid (H3BO3)** | **10043-35-3** |
| | 1 % |

**Component Analysis - Inventory**
**Wood/Wood dust (N/A)**

| US | CA | EU | AU | PH | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 | KR - REACH CCA | CN | NZ | MX | TW | VN (Draft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |

**Proprietary Ingredient #1 (Proprietary)**

| US | CA | EU | AU | PH | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 | KR - REACH CCA | CN | NZ | MX | TW | VN (Draft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yes | DSL | EIN | Yes | Yes | Yes | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Yes |

**Proprietary Ingredient #2 (Proprietary)**

| US | CA | EU | AU | PH | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 | KR - REACH CCA | CN | NZ | MX | TW | VN (Draft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yes | DSL | EIN | Yes | Yes | Yes | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Yes |

**Boric acid (H3BO3) (10043-35-3)**

| US | CA | EU | AU | PH | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 | KR - REACH CCA | CN | NZ | MX | TW | VN (Draft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yes | DSL | EIN | Yes | Yes | Yes | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Yes |

**U.S. Inventory (TSCA)**
All components of this product are in compliance.

## Section 16 - OTHER INFORMATION

**NFPA Ratings**
Health: 2 Fire: 2 Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

**Preparation Date**
Issue date: 1/21/2019
Revision date: -
Revision number: 1

**Key / Legend**
ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive;

DSL - Domestic Substances List; EC – European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL) , KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX – Mexico; Ne- Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL – Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL- Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA – Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW – Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

**Other Information**

**Disclaimer:**

Supplier cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.