



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200) and Canada Hazardous  
Products Act (HPA) and the Hazardous Products Regulation (HPR), as amended

Issuing Date 09/17/2025

Revision date 02/03/2026

Revision Number 6

## 1. Identification

### Product identifier

Product name COMBAT

### Other means of identification

Product code 120011

Synonyms None

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

Recommended use Cleaner/Degreaser.

Restrictions on use No information available

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

Rochester Midland Corporation  
155 Paragon Drive  
Rochester, New York 14624 USA  
(585) 336-2200

#### **Importer**

Rochester Midland Canada Corporation  
2470 Milltower Court  
Mississauga, ON L5N 7W5  
Canada  
905-619-6738

### Emergency telephone number

Emergency Telephone INFOTRAC: 1-800-535-5053  
OUTSIDE U.S.: +1-352-323-3500  
CANUTEC: 613-996-6666

## 2. Hazard(s) identification

### Classification of the substance or mixture

|                                   |            |
|-----------------------------------|------------|
| Corrosive to metals               | Category 1 |
| Skin corrosion/irritation         | Category 1 |
| Serious eye damage/eye irritation | Category 1 |

### Label elements



**Danger****Hazard statements**

May be corrosive to metals.

Causes severe skin burns and eye damage.

**Precautionary Statements - Prevention**

Do not breathe dust, fume, gas, mist, vapors and spray.

Wash face, hands and any exposed skin thoroughly after handling.

Wear protective gloves, protective clothing, eye protection and face protection.

Keep only in original packaging.

**Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor.

Specific treatment (see supplemental first aid instructions on this label).

**Eyes**

Immediately call a POISON CENTER or doctor.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Skin**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

Wash contaminated clothing before reuse.

**Inhalation**

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Immediately call a POISON CENTER or doctor.

**Ingestion**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

**Spill**

Absorb spillage to prevent material damage.

**Precautionary Statements - Storage**

Store locked up.

Store in corrosion resistant container with a resistant inner liner.

**Precautionary Statements - Disposal**

Dispose of contents and container in accordance with local, regional, national, and international regulations as applicable.

**Hazards classified under paragraph (d)(1)(ii) of 1910.1200**

No information available.

**Other Information**

No information available.

**3. Composition/information on ingredients****Substance**

Not applicable.

**Mixture**

| Chemical name                     | CAS No.  | Weight-% | TRADE SECRET |
|-----------------------------------|----------|----------|--------------|
| Tetrasodium EDTA                  | 64-02-8  | 0.1-1%   | *            |
| Diethylene glycol monobutyl ether | 112-34-5 | 3-7%     | *            |

\*The exact percentage (concentration) of composition has been withheld as a trade secret. If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

**4. First-aid measures**

**Description of first aid measures**

|                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General advice</b>                     | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.                                                                                                                                                                                                                                                                                                                                      |
| <b>Inhalation</b>                         | Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. |
| <b>Eye contact</b>                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical attention.                                                                                                                                                                              |
| <b>Skin contact</b>                       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention.                                                                                                                                                                                                                                                                                                 |
| <b>Ingestion</b>                          | Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical attention.                                                                                                                                                                                                                                                                                                           |
| <b>Self-protection of the first aider</b> | Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.                                                                                                       |

**Most important symptoms and effects, both acute and delayed**

|                            |                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptoms</b>            | Burning. Burning sensation. Redness. May cause blindness. Coughing and/ or wheezing. May cause redness and tearing of the eyes. |
| <b>Effects of Exposure</b> | No information available.                                                                                                       |

**Indication of any immediate medical attention and special treatment needed**

|                           |                                                                                                                                                                                                                                                                                                                                        |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Note to physicians</b> | Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**5. Fire-fighting measures**

|                                                                              |                                                                                                                                        |
|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>Suitable Extinguishing Media</u></b>                                   | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.                                |
| <b>Unsuitable extinguishing media</b>                                        | Do not scatter spilled material with high pressure water streams.                                                                      |
| <b><u>Specific hazards arising from the chemical</u></b>                     | The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. |
| <b><u>Explosion data</u></b>                                                 |                                                                                                                                        |
| <b>Sensitivity to mechanical impact</b>                                      | None.                                                                                                                                  |
| <b>Sensitivity to static discharge</b>                                       | None.                                                                                                                                  |
| <b><u>Special protective equipment and precautions for fire-fighters</u></b> | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.     |

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

|                             |                                                                                                                                                                                                                                         |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions</b> | Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Attention! Corrosive material. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |
| <b>Other information</b>    | Refer to protective measures listed in Sections 7 and 8.                                                                                                                                                                                |

**Methods and material for containment and cleaning up**

|                                        |                                                                                                                                            |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Methods for containment</b>         | Prevent further leakage or spillage if safe to do so.                                                                                      |
| <b>Methods for cleaning up</b>         | Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. |
| <b>Prevention of secondary hazards</b> | Clean contaminated objects and areas thoroughly observing environmental regulations.                                                       |

**7. Handling and storage****Precautions for safe handling**

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Advice on safe handling</b>        | Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.                |
| <b>General hygiene considerations</b> | Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. |

**Conditions for safe storage, including any incompatibilities**

|                           |                                                                                                                                                                                      |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Storage Conditions</b> | Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials. |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**8. Exposure controls/personal protection****Control Parameters****Exposure Limits**

| Chemical name                                 | ACGIH TLV                                   | OSHA PEL | NIOSH |
|-----------------------------------------------|---------------------------------------------|----------|-------|
| Diethylene glycol monobutyl ether<br>112-34-5 | TWA: 10 ppm inhalable<br>fraction and vapor | -        | -     |

  

| Chemical name                                    | Alberta | British Columbia | Ontario                                      | Quebec                                             |
|--------------------------------------------------|---------|------------------|----------------------------------------------|----------------------------------------------------|
| Diethylene glycol monobutyl<br>ether<br>112-34-5 | -       | -                | TWA: 10 ppm; inhalable<br>fraction and vapor | TWAEV: 10 ppm;<br>inhalable fraction and<br>vapour |

| Chemical name                     | Manitoba                                  | New Brunswick                             | Newfoundland and Labrador                 | Nova Scotia                               |
|-----------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| Diethylene glycol monobutyl ether | TWA: 10 ppm; inhalable fraction and vapor | TWA: 10 ppm; inhalable fraction and vapor | TWA: 10 ppm; inhalable fraction and vapor | TWA: 10 ppm; inhalable fraction and vapor |

| Chemical name                     | Nunavut | Prince Edward Island                      | Saskatchewan | Yukon |
|-----------------------------------|---------|-------------------------------------------|--------------|-------|
| Diethylene glycol monobutyl ether | -       | TWA: 10 ppm; inhalable fraction and vapor | -            | -     |

**Note****Biological occupational exposure limits**

See section 16 for terms and abbreviations.

This product, as supplied, contains materials that do not have reportable biological exposure limits or are not subject to the reporting requirements of the local jurisdiction.

**Appropriate engineering controls****Engineering controls**Showers  
Eyewash stations  
Ventilation systems.**Individual protection measures, such as personal protective equipment****Eye/face protection**

Face protection shield. Tight sealing safety goggles. Wear safety glasses with side shields (or goggles).

**Hand protection**

Wear suitable gloves.

**Skin and body protection**Wear suitable protective clothing. Chemical resistant apron.  
It is the responsibility of the end user of this product to determine level of PPE required that is consistent with safe use of this product.**Respiratory protection**

Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

|                |                          |
|----------------|--------------------------|
| Appearance     | Clear, red-orange liquid |
| Physical state | Liquid                   |
| Color          | Red-orange.              |
| Odor           | Orange scent             |

**Property****Values****Remarks • Method**

|                                                           |                   |                  |
|-----------------------------------------------------------|-------------------|------------------|
| Melting point/freezing point                              | No data available |                  |
| Boiling point (or initial boiling point or boiling range) | No data available |                  |
| Flammability (solid, gas)                                 | No data available |                  |
| Flammability Limit in Air                                 |                   |                  |
| Upper flammability limit:                                 | No data available |                  |
| Lower flammability limit:                                 | No data available |                  |
| Flash point                                               | No data available | None to boiling. |

|                                                   |                   |                                         |
|---------------------------------------------------|-------------------|-----------------------------------------|
| Autoignition temperature                          | No data available |                                         |
| Decomposition temperature                         | No data available |                                         |
| SADT (°C)                                         | No data available |                                         |
| pH                                                | 11.8              | 10.7 @ 1:4 dilution 9.9 @ 1:64 dilution |
| pH (as aqueous solution)                          | No data available |                                         |
| Kinematic Viscosity                               | No data available |                                         |
| Dynamic Viscosity                                 | No data available |                                         |
| Solubility                                        | No data available |                                         |
| Water solubility                                  | No data available |                                         |
| Partition coefficient n-octanol/water (log value) | No data available |                                         |
| Vapor pressure (includes evaporation rate)        | No data available |                                         |
| Evaporation rate                                  |                   |                                         |
| Specific gravity                                  | 0.999 - 1.020     |                                         |
| Bulk density                                      | 8.44 lb/gal       |                                         |
| Density                                           | No data available |                                         |
| Vapor density                                     | No data available |                                         |
| Particle characteristics                          |                   |                                         |
| Particle Size                                     | No data available |                                         |
| Particle Size Distribution                        | No data available |                                         |
| VOC content                                       | 0                 |                                         |

Other information**10. Stability and reactivity**

|                                    |                                                     |
|------------------------------------|-----------------------------------------------------|
| Reactivity                         | No information available.                           |
| Chemical stability                 | Stable under normal conditions.                     |
| Possibility of hazardous reactions | None under normal processing.                       |
| Conditions to avoid                | Exposure to air or moisture over prolonged periods. |
| Incompatible materials             | Oxidizing agent. Acids. Bases.                      |
| Hazardous decomposition products   | None known based on information supplied.           |

**11. Toxicological information**Information on likely routes of exposure**Product Information**

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation   | Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. |
| Eye contact  | Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.                                                                                                                                                                                                                                                       |
| Skin contact | Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns.                                                                                                                                                                                                                                                                                                                                                                       |

**Ingestion**

Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** No information available.

**Acute toxicity** No information available.

**Numerical measures of toxicity**

The following ATE values have been calculated for the mixture

ATEmix (oral) 54,225.00 mg/kg  
ATEmix (dermal) 36,943.60 mg/kg

**Component Information**

| Chemical name                                 | Oral LD50            | Dermal LD50             | Inhalation LC50 |
|-----------------------------------------------|----------------------|-------------------------|-----------------|
| Tetrasodium EDTA<br>64-02-8                   | = 1658 mg/kg ( Rat ) | -                       | -               |
| Diethylene glycol monobutyl ether<br>112-34-5 | = 5660 mg/kg ( Rat ) | = 2700 mg/kg ( Rabbit ) | -               |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** Classification based on data available for ingredients. Causes severe skin burns and eye damage.

**Serious eye damage/eye irritation** Classification based on data available for ingredients. Causes serious eye damage. Causes burns.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

**12. Ecological information**

**Ecotoxicity** Based on available data, the classification criteria are not met.

| Chemical name               | Algae/aquatic plants | Fish                                                                                                   | Toxicity to microorganisms | Crustacea            |
|-----------------------------|----------------------|--------------------------------------------------------------------------------------------------------|----------------------------|----------------------|
| Tetrasodium EDTA<br>64-02-8 | -                    | LC50: =41mg/L (96h, <i>Lepomis macrochirus</i> )<br>LC50: =59.8mg/L (96h, <i>Pimephales promelas</i> ) | -                          | -                    |
| Diethylene glycol monobutyl | EC50: >100mg/L (96h, | LC50: =1300mg/L (96h,                                                                                  | -                          | EC50: >100mg/L (48h, |

|                   |                             |                      |  |                |
|-------------------|-----------------------------|----------------------|--|----------------|
| ether<br>112-34-5 | Desmodesmus<br>subspicatus) | Lepomis macrochirus) |  | Daphnia magna) |
|-------------------|-----------------------------|----------------------|--|----------------|

**Persistence and degradability** No information available.

#### Bioaccumulative potential

| Chemical name                                 | Partition coefficient |
|-----------------------------------------------|-----------------------|
| Diethylene glycol monobutyl ether<br>112-34-5 | 1                     |

**Other adverse effects** No information available.

### 13. Disposal considerations

#### Disposal methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

### 14. Transport information

**DOT** Not regulated

**TDG** Not regulated

### 15. Regulatory information

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

#### International Regulations

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

#### International Inventories

**TSCA** Complies

**DSL/NDSL** Complies

**EINECS/ELINCS** Contact supplier for inventory compliance status.

**ENCS** Contact supplier for inventory compliance status.

**IECSC** Contact supplier for inventory compliance status.



|              |                                                   |
|--------------|---------------------------------------------------|
| <b>KECI</b>  | Contact supplier for inventory compliance status. |
| <b>PICCS</b> | Contact supplier for inventory compliance status. |
| <b>AIIC</b>  | Contact supplier for inventory compliance status. |
| <b>NZIoC</b> | Contact supplier for inventory compliance status. |
| <b>TCSI</b>  | Contact supplier for inventory compliance status. |

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing Chemicals Inventory  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AIIC** - Australian Inventory of Industrial Chemicals  
**NZIoC** - New Zealand Inventory of Chemicals  
**TCSI** - Taiwan Chemical Substance Inventory

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

| Chemical name                                 | SARA 313 - Threshold Values % |
|-----------------------------------------------|-------------------------------|
| Diethylene glycol monobutyl ether<br>112-34-5 | 1.0                           |

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CAA (Clean Air Act)**

This product contains the following substances which are regulated pollutants to the Clean Air Act (CAA).

| Chemical name                                 | Hazardous air pollutants (HAPs) | Ozone-depleting substances (ODS) |
|-----------------------------------------------|---------------------------------|----------------------------------|
| Diethylene glycol monobutyl ether<br>112-34-5 | Present                         | -                                |

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:

| Chemical name               | California Proposition 65 |
|-----------------------------|---------------------------|
| Sulfur dioxide<br>7446-09-5 | Developmental             |
| Ethyl acrylate<br>140-88-5  | Carcinogen                |
| Ethylene oxide              | Carcinogen                |

|         |                                                           |
|---------|-----------------------------------------------------------|
| 75-21-8 | Developmental<br>Female Reproductive<br>Male Reproductive |
|---------|-----------------------------------------------------------|

**U.S. State Right-to-Know Regulations**

| Chemical name                                 | New Jersey | Massachusetts | Pennsylvania |
|-----------------------------------------------|------------|---------------|--------------|
| Water<br>7732-18-5                            | -          | -             | X            |
| Potassium hydroxide<br>1310-58-3              | X          | X             | X            |
| Diethylene glycol monobutyl ether<br>112-34-5 | X          | -             | X            |
| Sulfur dioxide<br>7446-09-5                   | X          | X             | X            |
| Ethyl acrylate<br>140-88-5                    | X          | X             | X            |
| Ethylene oxide<br>75-21-8                     | X          | X             | X            |
| 1-Octanal<br>124-13-0                         | -          | X             | -            |
| D-Limonene<br>5989-27-5                       | X          | -             | -            |
| Ethyl butyrate<br>105-54-4                    | X          | X             | X            |

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. Other information**

**NFPA**                      Health hazards 3      Flammability 0      Instability 0      Special hazards -  
**HMIS**                      Health hazards 3      Flammability 0      Physical hazards 4      Personal protection D

**Key or legend to abbreviations and acronyms used in the safety data sheet**

List may include phrases which are not applicable to this product

**Legend**

|         |                                                                                                 |
|---------|-------------------------------------------------------------------------------------------------|
| ACGIH   | American Conference of Governmental Industrial Hygienists                                       |
| ADN     | Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Europe) |
| ADR     | Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)             |
| AIIC    | Australian Inventory of Industrial Chemicals                                                    |
| ATE     | Acute Toxicity Estimate                                                                         |
| ASTM    | American Society for the Testing of Materials                                                   |
| bar     | Biological Reference Values for Chemical Compounds in the Work Area                             |
| BAT     | Biological tolerance values for occupational exposure                                           |
| BEL     | Biological exposure limits                                                                      |
| bw      | Body weight                                                                                     |
| Ceiling | Maximum limit value                                                                             |
| CMR     | Carcinogen, Mutagen or Reproductive Toxicant                                                    |
| DOT     | Department of Transportation (United States)                                                    |
| DSL     | Domestic Substances List (Canada)                                                               |
| EmS     | Emergency Schedule                                                                              |
| ENCS    | Existing and New Chemical Substances (Japan)                                                    |
| EPA     | U.S. Environmental Protection Agency                                                            |
| GHS     | Globally Harmonized System                                                                      |

|         |                                                                                                     |
|---------|-----------------------------------------------------------------------------------------------------|
| HMIS    | Hazardous Materials Identification System                                                           |
| 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 |
| ICAO    | International Civil Aviation Organization                                                           |
| IECSC   | Inventory of Existing Chemical Substances in China                                                  |
| IMDG    | International Maritime Dangerous Goods                                                              |
| IMO     | International Maritime Organization                                                                 |
| ISO     | International Organization for Standardization                                                      |
| KECI    | Korean 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                                 |
| NFPA    | National Fire Protection Association                                                                |
| NIOSH   | National Institute for Occupational Safety and Health                                               |
| n.o.s.  | Not Otherwise Specified                                                                             |
| NOAEC   | No Observed Adverse Effect Concentration                                                            |
| NOAEL   | No Observed Adverse Effect Level                                                                    |
| NOELR   | No Observable Effect Loading Rate                                                                   |
| NTP     | National Toxicology Program (United States)                                                         |
| NZIoC   | New Zealand Inventory of Chemicals                                                                  |
| OECD    | Organization for Economic Cooperation and Development                                               |
| OEL     | Occupational exposure limits                                                                        |
| OSHA    | Occupational Safety and Health Administration of the US Department of Labor                         |
| PBT     | Persistent, Bioaccumulative and Toxic substance                                                     |
| PICCS   | Philippines Inventory of Chemicals and Chemical Substances                                          |
| PMT     | Persistent, Mobile and Toxic                                                                        |
| PPE     | Personal protective equipment                                                                       |
| QSAR    | Quantitative Structure Activity Relationship                                                        |
| RID     | Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)                 |
| SADT    | Self-Accelerating Decomposition Temperature                                                         |
| SAR     | Structure-activity relationship                                                                     |
| SARA    | Superfund Amendments and Reauthorization Act                                                        |
| SDS     | Safety Data Sheet                                                                                   |
| SL      | Surface Limit                                                                                       |
| STEL    | Short Term Exposure Limit                                                                           |
| STOT RE | Specific target organ toxicity - Repeated exposure                                                  |
| STOT SE | Specific target organ toxicity - Single exposure                                                    |
| TCSI    | Taiwan Chemical Substance Inventory                                                                 |
| TDG     | Transport of Dangerous Goods (Canada)                                                               |
| TSCA    | Toxic Substances Control Act (United States)                                                        |
| TWA     | Time-Weighted Average                                                                               |
| UN      | United Nations                                                                                      |
| VOC     | Volatile organic compounds                                                                          |
| vPvB    | Very Persistent and Very Bioaccumulative                                                            |
| vPvM    | Very Persistent and Very Mobile                                                                     |
| As      | Allergenic substance                                                                                |
| DS      | Dermal Sensitizer                                                                                   |
| Ot      | Ototoxicant                                                                                         |
| pOt     | Ototoxicant - potential to cause hearing disorders                                                  |
| PS      | Photosensitizer                                                                                     |
| RS      | Respiratory Sensitizer                                                                              |
| S       | Sensitizer                                                                                          |
| poS     | Sensitizer - capable of causing occupational asthma                                                 |
| Sa      | Simple asphyxiant                                                                                   |
| Sd      | Skin designation                                                                                    |
| pSd     | Skin designation - potential for cutaneous absorption                                               |

|     |                                                    |
|-----|----------------------------------------------------|
| Sdv | Skin designation - vacated                         |
| Sk  | Skin notation                                      |
| dSk | Skin notation - danger of cutaneous absorption     |
| pSk | Skin notation - potential for cutaneous absorption |

**Key literature references and sources for data used to compile the SDS**

U.S. Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
U.S. Environmental Protection Agency  
Acute Exposure Guideline Level(s) (AEGl(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan National Institute of Technology and Evaluation (NITE)  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
U.S. National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
International Organization for Economic Co-operation and Development (OECD) Environment, Health, and Safety Publications  
International Organization for Economic Co-operation and Development (OECD) High Production Volume Chemicals Program  
International Organization for Economic Co-operation and Development (OECD) Screening Information Data Set  
United Nations World Health Organization (WHO)

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\*\*END OF SDS\*\*