



# SAFETY DATA SHEET

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

Issuing Date 24-May-2024

Revision date 29-Dec-2025

Revision Number 3

## 1. Identification

### Product identifier

**Product Name** Saber® Outboard 100:1 Pre-Mix Synthetic 2-Cycle Oil

### Other means of identification

**Product Code(s)** ATO

**Synonyms** None

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

**Recommended use** Lubricating Oil

**Restrictions on use** Avoid formation of mists

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

#### Supplier Address

AMSOIL INC.  
Bay Adelaide Centre, East Tower  
22 Adelaide St. W  
Toronto, ON, Canada M5H 4E3  
T: +1 877-822-5172

#### Manufacturer Address

AMSOIL INC.  
One AMSOIL Center  
Superior, WI 54880, USA  
T: +1 715-392-7101

**E-mail** compliance@amsoil.com

### Emergency telephone number

**Emergency telephone** CHEMTREC: Within USA and Canada: 1-800-424-9300  
Outside the USA and Canada: +1 703-741-5970  
(collect calls accepted) 24/7

## 2. Hazard(s) identification

### Classification of the substance or mixture

|                                   |             |
|-----------------------------------|-------------|
| Skin corrosion/irritation         | Category 2  |
| Serious eye damage/eye irritation | Category 2A |
| Reproductive toxicity             | Category 2  |

### Label elements

#### **Warning**

#### **Hazard statements**

Causes skin irritation.  
Causes serious eye irritation.  
Suspected of damaging fertility or the unborn child.

**Precautionary Statements - Prevention**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

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

**Precautionary Statements - Response**

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

IF exposed or concerned: Get medical advice/attention.

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

**Eyes**

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

If eye irritation persists: Get medical advice and attention.

**Skin**

IF ON SKIN: Wash with plenty of water and soap.

If skin irritation occurs: Get medical advice and attention.

Take off contaminated clothing and wash it before reuse.

**Precautionary Statements - Storage**

Store locked up.

**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-% |
|---|----------------|----------|
| Synthetic Ester   | HMIRA RN-10941 | 10-30    |
| Hydrocarbyl Amine   | HMIRA RN-10941 | 5-10     |
| Benzene, 1,2,4-trimethyl-   | 95-63-6        | 1-5      |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | 68411-46-1     | 0.1 - <1 |

| Chemical name | CAS No. | Hazardous Material Information Review Act registry number (HMIRA registry #) | Date HMIRA filed and date exemption granted (if applicable) |
|---------------|---------|--|---|
|               |         |  |   |

|                   |                |            |                     |
|-------------------|----------------|------------|---------------------|
| Synthetic Ester   | HMIRA RN-10941 | RN - 10941 | Granted: 2023-07-05 |
| Hydrocarbyl Amine | HMIRA RN-10941 | RN - 10941 | Granted: 2023-07-05 |

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

#### Chemical Additions

The classification as a carcinogen does not apply as it can be shown that the Base oil(s) contain(s) less than 3% DMSO extract as measured by IP 346.

## 4. First-aid measures

### Description of first aid measures

|   |   |
|---|---|
| <b>General advice</b>                     | Show this safety data sheet to the doctor in attendance.  |
| <b>Inhalation</b>                         | Remove to fresh air. Get medical attention immediately if symptoms 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 medical attention if irritation develops and persists. |
| <b>Skin contact</b>                       | Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.  |
| <b>Ingestion</b>                          | Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.   |
| <b>Self-protection of the first aider</b> | Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).   |

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

|                            |  |
|----------------------------|--|
| <b>Symptoms</b>            | May cause redness and tearing of the eyes. Burning sensation.                                |
| <b>Effects of Exposure</b> | May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility. |

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

|                           |                        |
|---------------------------|------------------------|
| <b>Note to physicians</b> | Treat symptomatically. |
|---------------------------|------------------------|

## 5. Fire-fighting measures

|   |   |
|---|---|
| <b>Suitable Extinguishing Media</b>                                   | Water spray, carbon dioxide (CO <sub>2</sub> ), dry chemical, alcohol-resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| <b>Unsuitable extinguishing media</b>                                 | Do not use a solid water stream as it may scatter and spread fire.  |
| <b>Specific hazards arising from the chemical</b>                     | Containers can burst or explode when heated, due to excessive pressure build-up. Thermal decomposition can lead to release of irritating gases and vapors.                                    |
| <b>Hazardous combustion products</b>                                  | Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).  |
| <b>Explosion data</b>   |   |
| <b>Sensitivity to mechanical impact</b>                               | None.   |
| <b>Sensitivity to static discharge</b>                                | None.   |
| <b>Special protective equipment and precautions for fire-fighters</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

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**For emergency responders** Use personal protection recommended in Section 8.

### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13). Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

**Reference to other sections** For additional information see: Section 8: Exposure controls/personal protection; Section 12: Ecological information; Section 13: Disposal considerations.

## 7. Handling and storage

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash before reuse.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Store locked up. Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. Exposure controls/personal protection

### Control Parameters

**Exposure Limits** The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here. Under conditions which may generate mists, the following exposure limits are recommended: Long-term exposure limit (8-hour TWA): 5 mg/m<sup>3</sup>. Short-term exposure limit (15-minute): 10 mg/m<sup>3</sup>.

| Chemical name             | ACGIH TLV   | OSHA PEL | NIOSH        |
|---------------------------|-------------|----------|--------------|
| Benzene, 1,2,4-trimethyl- | TWA: 10 ppm | -        | TWA: 25 ppm; |

|         |  |  |                              |
|---------|--|--|------------------------------|
| 95-63-6 |  |  | TWA: 125 mg/m <sup>3</sup> ; |
|---------|--|--|------------------------------|

| Chemical name             | Manitoba     | New Brunswick | Newfoundland and Labrador | Nova Scotia  |
|---------------------------|--------------|---------------|---------------------------|--------------|
| Benzene, 1,2,4-trimethyl- | TWA: 10 ppm; |               | TWA: 10 ppm;              | TWA: 10 ppm; |

| Chemical name             | Nunavut | Prince Edward Island | Saskatchewan | Yukon |
|---------------------------|---------|----------------------|--------------|-------|
| Benzene, 1,2,4-trimethyl- |         | TWA: 10 ppm;         |              |       |

**Note** See section 16 for terms and abbreviations.  
**Other information on limit values** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Biological occupational exposure limits** This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

### Appropriate engineering controls

**Engineering controls** Ensure adequate ventilation, especially in confined areas.

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

**Eye/face protection** If there is a risk of contact: Wear safety glasses with side shields (or goggles).

**Hand protection** If there is a risk of contact: Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Wear suitable gloves.

**Skin and body protection** If there is a risk of contact: Wear suitable protective clothing. Long sleeved clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Use appropriate respiratory protection.

**Environmental exposure controls** Local authorities should be advised if significant spillages cannot be contained. Avoid release to the environment.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

## **9. Physical and chemical properties**

### Information on basic physical and chemical properties

#### Appearance

|                                |                  |
|--------------------------------|------------------|
| Physical state                 | Liquid           |
| Color                          | Blue             |
| Odor (includes odor threshold) | Mild hydrocarbon |

#### Property

Melting point / freezing point

Boiling point (or initial boiling point or boiling range)

Flammability

Flammability Limit in Air

Upper flammability or explosive limits

Lower flammability or explosive limits

#### Values

#### Remarks • Method

No data available

No data available

No data available

No data available

No data available

|   |  |                              |
|---|--|------------------------------|
| Flash point                                       | 174 °C / 345.2 °F                      | Cleveland Open Cup ASTM D 92 |
| Autoignition temperature                          |  | No data available            |
| Decomposition temperature                         |  | No data available            |
| SADT (°C)   |  | No data available            |
| pH  |  | No data available            |
| pH (as aqueous solution)                          |  | No data available            |
| Kinematic viscosity                               | 111.2 cSt @ 40 °C<br>14.5 cSt @ 100 °C | ASTM D445                    |
| 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                                  |  | No data available            |
| Density and/or relative density                   | 0.8772                                 | No data available            |
| Bulk density                                      |  | No data available            |
| Liquid Density                                    |  | No data available            |
| Relative vapor density                            |  | No data available            |
| Particle characteristics                          |  |                              |
| Particle Size                                     |  | No data available            |
| Particle Size Distribution                        |  | No data available            |
| <b><u>Other information</u></b>                   |  |                              |
| Molecular weight                                  | No information available               |                              |
| VOC content                                       | No information available               |                              |
| Softening point                                   | No information available               |                              |
| Pour Point  | -37 °C [ASTM D 97]                     |                              |
| Fire Point  | 234 °C (COC)[ASTM D 92]                |                              |

**Information with regard to physical hazard classes**

|                             |                          |
|-----------------------------|--------------------------|
| <b>Explosives</b>           |                          |
| Explosive properties        | No information available |
| <b>Oxidizing properties</b> | No information available |

**10. Stability and reactivity**

|   |  |
|---|--|
| <b>Reactivity</b>                         | None under normal use conditions.  |
| <b>Chemical stability</b>                 | Stable under normal conditions.  |
| <b>Possibility of hazardous reactions</b> | None under normal processing.  |
| <b>Conditions to avoid</b>                | None known based on information supplied.  |
| <b>Incompatible materials</b>             | None known based on information supplied.  |
| <b>Hazardous decomposition products</b>   | Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). |

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

|                   |  |
|-------------------|--|
| <b>Inhalation</b> | Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. |
|-------------------|--|

|                     |   |
|---------------------|---|
| <b>Eye contact</b>  | Specific test data for the substance or mixture is not available. Causes serious eye irritation. May cause redness, itching, and pain.            |
| <b>Skin contact</b> | Specific test data for the substance or mixture is not available. Causes skin irritation.   |
| <b>Ingestion</b>    | Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |

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

**Symptoms** May cause redness and tearing of the eyes. Burning sensation.

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

**Numerical measures of toxicity**

The following ATE values have been calculated for the mixture:

|                                  |             |
|----------------------------------|-------------|
| <b>ATEmix (oral)</b>             | >5000 mg/kg |
| <b>ATEmix (dermal)</b>           | >5000 mg/kg |
| <b>ATEmix (inhalation-vapor)</b> | >20 mg/l    |

**Component Information**

| Chemical name   | Oral LD50            | Dermal LD50          | Inhalation LC50                   |
|---|----------------------|----------------------|-----------------------------------|
| Benzene, 1,2,4-trimethyl-   | = 3280 mg/kg ( Rat ) | > 3440 mg/kg ( Rat ) | = 18 g/m <sup>3</sup> ( Rat ) 4 h |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | > 5000 mg/kg ( Rat ) | > 2000 mg/kg (Rat)   | -                                 |

**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 skin irritation.

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

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

**Germ cell mutagenicity** No information available.

**Carcinogenicity** The classification as a carcinogen does not apply as it can be shown that the Base oil(s) contain(s) less than 3% DMSO extract as measured by IP 346.

|                                 |  |
|---------------------------------|--|
| <b>Reproductive toxicity</b>    | Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child. |
| <b>STOT - single exposure</b>   | No information available.  |
| <b>STOT - repeated exposure</b> | No information available.  |
| <b>Aspiration hazard</b>        | Due to the viscosity, this product does not present an aspiration hazard.  |

## 12. Ecological information

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

| Chemical name  | Algae/aquatic plants              | Fish   | Toxicity to microorganisms | Crustacea                            |
|--|-----------------------------------|--|----------------------------|--------------------------------------|
| Benzene, 1,2,4-trimethyl-95-63-6   | -                                 | LC50: 7.19 - 8.28mg/L (96h, Pimephales promelas) | -                          | EC50: =6.14mg/L (48h, Daphnia magna) |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1 | EC50: 51mg/L (48h, Daphnia magna) | LC50: >100mg/L (96h, Danio rerio)                | -                          | -                                    |

**Persistence and degradability** No information available.

### Bioaccumulation

#### Component Information

| Chemical name  | Partition coefficient |
|--|-----------------------|
| Benzene, 1,2,4-trimethyl-95-63-6   | 3.63                  |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1 | 6.66                  |

**Other adverse effects** No information available.

## 13. Disposal considerations

### Disposal methods

|  |   |
|--|---|
| <b>Waste from residues/unused products</b> | Dispose of in accordance with local regulations, Dispose of waste in accordance with environmental legislation. |
| <b>Contaminated packaging</b>              | Do not reuse empty containers.  |

**14. Transport information**

|             |               |
|-------------|---------------|
| <b>DOT</b>  | Not regulated |
| <b>TDG</b>  | Not regulated |
| <b>IATA</b> | Not regulated |
| <b>IMDG</b> | 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**

Contact supplier for inventory compliance status

**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 % |
|-------------------------------------|-------------------------------|
| Benzene, 1,2,4-trimethyl- - 95-63-6 | 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 does not contain any substances regulated as pollutants pursuant to Clean Air Act (CAA).

**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                        |
|-----------------------|--|
| Cumene - 98-82-8      | Carcinogen                                       |
| Benzene - 71-43-2     | Carcinogen<br>Developmental<br>Male Reproductive |
| Naphthalene - 91-20-3 | Carcinogen                                       |

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

| Chemical name  | New Jersey | Massachusetts | Pennsylvania |
|--|------------|---------------|--------------|
| Benzene, 1,2,4-trimethyl-<br>95-63-6                 | X          | X             | X            |
| Benzene, 1,3,5-trimethyl-<br>108-67-8                | -          | X             | -            |
| Cumene<br>98-82-8                                    | X          | X             | X            |
| Cymene<br>25155-15-1                                 | X          | -             | -            |
| Benzene<br>71-43-2                                   | X          | X             | X            |
| Phenol<br>108-95-2                                   | X          | X             | X            |
| o-Cresol<br>95-48-7                                  | X          | X             | X            |
| Dipropylene Glycol Monomethyl<br>Ether<br>34590-94-8 | X          | X             | X            |
| Diphenylamine<br>122-39-4                            | X          | X             | X            |
| Naphthalene<br>91-20-3                               | X          | X             | X            |
| Xylene<br>1330-20-7                                  | X          | X             | X            |
| n-Propylbenzene<br>103-65-1                          | X          | X             | X            |

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. Other information**

**NFPA** Health hazards 2 Flammability 1 Instability 0 Special hazards -  
**HMIS** Health hazards 2\* Flammability 1 Physical hazards 0 Personal protection X  
*Chronic Hazard Star Legend* \* = Chronic Health Hazard

**Key or legend to abbreviations and acronyms used in the safety data sheet****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. 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 GHS Classification  
 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)  
 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)

**Issuing Date** 24-May-2024

**Revision date** 29-Dec-2025

**Revision Note** Updated format.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**