



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

Revision date: 10-09-2026

Revision Number: 1

## 1. Identification

### Product identifier

Product Name GREEN TPE W/AM

### Other means of identification

Product Code CC10435757

Material number(s) CC104357572F

Synonyms None

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

Recommended use For industrial use only

Restrictions on use None.

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

#### Supplier Address

Avient Corporation  
33587 Walker Road, Avon Lake, OH 44012

E-mail address regulatoryservices@avient.com

### Emergency telephone number

Company Phone Number 1 (440) 930-1000  
or 1 (844) 4 AVIENT

24 Hour Emergency Phone Number CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident)

Emergency Telephone No information available

## 2. Hazard(s) identification

### Classification of the substance or mixture

This product is not considered hazardous by the US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200).

### Hazards not otherwise classified (HNOC)

Not applicable.

### Label elements

No label elements required

### Hazard statements

No hazard statements required

**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 / Unique identifier |
|---------------------------------------------------|------------|----------|----------------------------------|
| Titanium dioxide                                  | 13463-67-7 | 10 - 20% | *                                |
| Zinc pyrithione                                   | 13463-41-7 | 10 - 20% | *                                |
| Ethanol, 2,2'-iminobis-, N-coco alkyl derivatives | 61791-31-9 | 1 - 3%   | *                                |
| Carbon black                                      | 1333-86-4  | 1 - 3%   | *                                |

**4. First-aid measures****Description of first aid measures****General advice**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

**Inhalation**

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention immediately if symptoms occur.

**Eye contact**

Get immediate medical attention. 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.

**Skin contact**

Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

**Ingestion**

Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Immediate medical attention is required.

**Self-protection of the first aider**

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not breathe dust, fume, gas, mist, vapors and spray. Use personal protective equipment. See section 8 for more information. 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. Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Avoid breathing dust, fume, gas, mist, vapors and spray.

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

Coughing and/ or wheezing. Difficulty in breathing. Burning sensation. May cause blindness. May cause redness and tearing of the eyes. Erythema (skin redness).

**Effects of Exposure** May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility. Causes damage to organs through prolonged or repeated exposure. Suspected of causing cancer.

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

**Note to physicians** Treat symptomatically.

## **5. Fire-fighting measures**

**Suitable Extinguishing Media** Dry chemical, CO<sub>2</sub>, water spray or regular foam.

**Unsuitable extinguishing media** Do not use water jetstream.

**Specific hazards arising from the chemical** No information available.

**Hazardous combustion products** Decomposition products can include and are not limited to: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>). Ammonia. Fluorinated oxides. Hydrogen fluoride. Hydrogen chloride. Hydrogen sulfide. Sulfur oxides. Sulfur trioxide. Oxides of sulfur. Phosphorus oxides. Phosphine. Metal oxides.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protective equipment.

## **6. Accidental release measures**

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

**Personal precautions** Ensure adequate ventilation. Do not breathe dust, fume, gas, mist, vapors and spray. Avoid contact with skin, eyes or clothing. Use personal protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid generation of dust. 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** Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## **7. Handling and storage**

**Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust,

fume, gas, mist, vapors and spray. Handle product only in closed system or provide appropriate exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Use personal protective equipment. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Take off immediately all contaminated clothing and wash it before reuse. Avoid contact with skin, eyes or clothing. Remove contaminated clothing and shoes. Take off contaminated clothing and wash before reuse.

**General hygiene considerations**

Do not breathe dust, fume, gas, mist, vapors and spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Use personal protection recommended in Section 8. Take off immediately all contaminated clothing and wash it before reuse. Contaminated work clothing must not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wear protective gloves, eye protection and face protection. Avoid breathing dust, fume, gas, mist, vapors and spray.

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

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

## 8. Exposure controls/personal protection

**Control Parameters****Exposure Limits**

| Chemical name                 | ACGIH TLV                                                                                                                                | OSHA PEL                                                                            | NIOSH                                                                                                                                                      |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Titanium dioxide (13463-67-7) | TWA: 0.2 mg/m <sup>3</sup> nanoscale respirable particulate matter<br>TWA: 2.5 mg/m <sup>3</sup> finescale respirable particulate matter | TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 10 mg/m <sup>3</sup> total dust | TWA: 2.4 mg/m <sup>3</sup> ; CIB 63 fine TWA: 0.3 mg/m <sup>3</sup> ; CIB 63 ultrafine, including engineered nanoscale<br>IDLH: 5000 mg/m <sup>3</sup>     |
| Carbon black (1333-86-4)      | TWA: 3 mg/m <sup>3</sup> inhalable particulate matter                                                                                    | TWA: 3.5 mg/m <sup>3</sup> (vacated) TWA: 3.5 mg/m <sup>3</sup>                     | TWA: 3.5 mg/m <sup>3</sup> ; TWA: 0.1 mg/m <sup>3</sup> ; Carbon black in presence of Polycyclic aromatic hydrocarbons PAH<br>IDLH: 1750 mg/m <sup>3</sup> |

**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, 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**

Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Face protection shield. Tight sealing safety goggles.

**Hand protection**

Wear suitable gloves.

**Skin and body protection**

Wear suitable protective clothing. Long sleeved clothing.

|                                        |                                                                                                                                                                          |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Respiratory protection</b>          | Use appropriate respiratory protection. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. |
| <b>Environmental exposure controls</b> | Local authorities should be advised if significant spillages cannot be contained.                                                                                        |

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

|                                       |                          |
|---------------------------------------|--------------------------|
| <b>Appearance</b>                     | Pellet                   |
| <b>Physical state</b>                 | Solid                    |
| <b>Color</b>                          | No information available |
| <b>Odor (includes odor threshold)</b> | Slight                   |

| <b>Property</b>                                                  | <b>Values</b>     | <b>Remarks • Method</b> |
|------------------------------------------------------------------|-------------------|-------------------------|
| <b>Melting point / freezing point</b>                            | No data available | None known              |
| <b>Boiling point (or initial boiling point or boiling range)</b> | No data available | None known              |
| <b>Flammability</b>                                              | No data available | None known              |
| <b>Flammability Limit in Air</b>                                 |                   | None known              |
| <b>Upper flammability or explosive limits</b>                    | No data available |                         |
| <b>Lower flammability or explosive limits</b>                    | No data available |                         |
| <b>Flash point</b>                                               | No data available | None known              |
| <b>Autoignition temperature</b>                                  | No data available | None known              |
| <b>Decomposition temperature</b>                                 | No data available | None known              |
| <b>SADT (°C)</b>                                                 | No data available | None known              |
| <b>pH</b>                                                        | No data available | None known              |
| <b>pH (as aqueous solution)</b>                                  | No data available | None known              |
| <b>Kinematic viscosity</b>                                       | No data available | None known              |
| <b>Dynamic viscosity</b>                                         | No data available | None known              |
| <b>Solubility</b>                                                | No data available | None known              |
| <b>Water solubility</b>                                          | No data available | None known              |
| <b>Partition coefficient n-octanol/water (log value)</b>         | No data available | None known              |
| <b>Vapor pressure (includes evaporation rate)</b>                | No data available | None known              |
| <b>Evaporation rate</b>                                          | No data available | None known              |
| <b>Density and/or relative density</b>                           | No data available | None known              |
| <b>Bulk density</b>                                              | No data available |                         |
| <b>Liquid Density</b>                                            | No data available |                         |
| <b>Relative vapor density</b>                                    | No data available | None known              |
| <b>Particle characteristics</b>                                  |                   | None known              |
| <b>Particle Size</b>                                             | No data available |                         |
| <b>Particle Size Distribution</b>                                | No data available |                         |

### Other information

## 10. Stability and reactivity

|                                           |                                                      |
|-------------------------------------------|------------------------------------------------------|
| <b>Reactivity</b>                         | No information available.                            |
| <b>Chemical stability</b>                 | Stable under recommended storage conditions.         |
| <b>Possibility of hazardous reactions</b> | None under normal processing.                        |
| <b>Conditions to avoid</b>                | Excessive heat.                                      |
| <b>Incompatible materials</b>             | Strong acids. Strong bases. Strong oxidizing agents. |
| <b>Hazardous decomposition products</b>   | None under normal use conditions.                    |

## 11. Toxicological information

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

### Information on likely routes of exposure

#### Product Information

|                     |                                                                                                                                                                                                |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>   | Specific test data for the substance or mixture is not available. Fatal if inhaled. (based on components). May cause irritation of respiratory tract.                                          |
| <b>Eye contact</b>  | Specific test data for the substance or mixture is not available. May result in permanent damage including blindness. Causes serious eye damage.                                               |
| <b>Skin contact</b> | Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).                                                                               |
| <b>Ingestion</b>    | Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed. (based on components). |

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

|                                       |                                                                                                                                                                 |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptoms</b>                       | Coughing and/ or wheezing. Difficulty in breathing. Burning sensation. May cause blindness. May cause redness and tearing of the eyes. Erythema (skin redness). |
| <b>Acute toxicity</b>                 | Fatal if inhaled. Toxic by inhalation. Harmful if swallowed.                                                                                                    |
| <b>Numerical measures of toxicity</b> | No information available.                                                                                                                                       |

#### Component Information

| Chemical name                                                  | Oral LD50         | Dermal LD50             | Inhalation LC50 |
|----------------------------------------------------------------|-------------------|-------------------------|-----------------|
| Zinc pyrithione (13463-41-7)                                   | 177 mg/kg ( Rat ) | > 2000 mg/kg ( Rat )    | -               |
| Ethanol, 2,2'-iminobis-, N-coco alkyl derivatives (61791-31-9) | -                 | > 5000 mg/kg ( Rabbit ) | -               |
| Carbon black (1333-86-4)                                       | -                 | > 2000 mg/kg ( Rabbit ) | -               |

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

|                                          |                                                                                                                                |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>Skin corrosion/irritation</b>         | Classification based on data available for ingredients. Causes skin irritation.                                                |
| <b>Serious eye damage/eye irritation</b> | Classification based on data available for ingredients. Causes burns. Causes serious eye damage.                               |
| <b>Respiratory or skin sensitization</b> | Based on available data, the classification criteria are not met.                                                              |
| <b>Germ cell mutagenicity</b>            | Based on available data, the classification criteria are not met.                                                              |
| <b>Carcinogenicity</b>                   | Contains a known or suspected carcinogen. Classification based on data available for ingredients. Suspected of causing cancer. |

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical name                 | ACGIH | IARC     | NTP | OSHA |
|-------------------------------|-------|----------|-----|------|
| Titanium dioxide (13463-67-7) | A3    | Group 2B | -   | X    |
| Carbon black (1333-86-4)      | A3    | Group 2B | -   | X    |

|                                 |                                                                                                                                                     |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reproductive toxicity</b>    | Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child. |
| <b>STOT - single exposure</b>   | Based on available data, the classification criteria are not met.                                                                                   |
| <b>STOT - repeated exposure</b> | Causes damage to organs through prolonged or repeated exposure.                                                                                     |
| <b>Aspiration hazard</b>        | No information available.                                                                                                                           |
| <b>Other adverse effects</b>    | No information available.                                                                                                                           |
| <b>Interactive effects</b>      | No information available.                                                                                                                           |

## 12. Ecological information

**Ecotoxicity** Very toxic to aquatic life with long lasting effects.

### Terrestrial ecotoxicity

#### Component Information

| Chemical name               | Earthworm | Avian                                                      | Honeybees |
|-----------------------------|-----------|------------------------------------------------------------|-----------|
| Zinc pyrethrin (13463-41-7) | -         | Acute Oral Toxicity: LD50 = 64 mg/kg (Colinus virginianus) | -         |

**Persistence and degradability** No information available.

### Bioaccumulative potential

#### Component Information

| Chemical name               | Partition coefficient | Bioconcentration factor (BCF) | Trophic magnification factor (TMF) |
|-----------------------------|-----------------------|-------------------------------|------------------------------------|
| Zinc pyrethrin (13463-41-7) | 0.9                   | 11                            | -                                  |

**Mobility in soil** No information available.

**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.                                                                                  |

**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste.

## 14. Transport information

|                   |               |
|-------------------|---------------|
| <u>DOT</u>        | Not regulated |
| <u>TDG</u>        | Not regulated |
| <u>MEX</u>        | Not regulated |
| <u>ICAO (air)</u> | Not regulated |
| <u>IATA</u>       | Not regulated |
| <u>IMDG</u>       | Not regulated |

## 15. Regulatory information

### International Regulations

**The Rotterdam Convention** Not applicable

### International Inventories

|         |          |
|---------|----------|
| TSCA    | Complies |
| DSL/NDL | Complies |
| ENCS    | Complies |
| IECSC   | Complies |
| KECL    | Complies |
| PICCS   | Complies |
| AIIC    | Complies |
| NZIoC   | Complies |
| TCSI    | Complies |

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### **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 contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

| Chemical name                      | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|------------------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Zinc pyrrhione (13463-41-7)        | -                           | X                      | -                         | -                          |
| C.I. Pigment Brown 24 (68186-90-3) | -                           | X                      | -                         | -                          |
| C.I. Pigment Green 7 (1328-53-6)   | -                           | X                      | -                         | -                          |



**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 CaProp 65 substances above 0.1%!

| Chemical name                 | California Proposition 65 |
|-------------------------------|---------------------------|
| Titanium dioxide (13463-67-7) | Carcinogen                |
| Carbon black (1333-86-4)      | Carcinogen                |

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

| Chemical name                 | New Jersey | Massachusetts | Pennsylvania |
|-------------------------------|------------|---------------|--------------|
| Titanium dioxide (13463-67-7) | X          | X             | X            |
| Zinc pyrithione (13463-41-7)  | X          | -             | X            |
| Carbon black (1333-86-4)      | X          | X             | X            |

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**16. Other information**

|                                   |                           |                                  |                           |                              |
|-----------------------------------|---------------------------|----------------------------------|---------------------------|------------------------------|
| <b>NFPA</b>                       | <b>Health hazards</b> 4   | <b>Flammability</b> 0            | <b>Instability</b> 0      | <b>Special hazards</b> -     |
| <b>HMIS</b>                       | <b>Health hazards</b> 3 * | <b>Flammability</b> 0            | <b>Physical hazards</b> 0 | <b>Personal protection</b> - |
| <i>Chronic Hazard Star Legend</i> |                           | <i>* = Chronic Health Hazard</i> |                           |                              |

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

List may include phrases which are not applicable to this product

|         |                                                                                                 |
|---------|-------------------------------------------------------------------------------------------------|
| 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)                                                               |
| ECEL    | Existing Chemical Exposure Limit                                                                |
| EINECS  | European Inventory of Existing Chemical Substances                                              |

|         |                                                                                                     |
|---------|-----------------------------------------------------------------------------------------------------|
| ELINCS  | European List of Notified Chemical Substances                                                       |
| 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                                 |
| NDSL    | Non-Domestic Substances List (Canada)                                                               |
| 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  
 U.S. EPA 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  
 U.S. Hazardous Substance Data Bank (HSDB)  
 International Uniform Chemical Information Database (IUCLID)  
 Japan National Institute of Technology and Evaluation (NITE)  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 U.S. National Institute for Occupational Safety and Health (NIOSH)  
 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)

**Revision date** 10-09-2026

**Revision Note** No information available.

**Disclaimer**

**Notice to reader: To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Particularly, this information may not be valid for such material used in conjunction with any other materials or in any process, unless specified in the text.**

**End of Safety Data Sheet**