



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS  
2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous  
Products Regulation (HPR)

Revision Date 06-Dec-2024

Version 1

## 1. Identification

### Product identifier

**Product Name** PNEUMATIC-HYDRAULIC SEALANT 36 ML

### Other means of identification

**Product Code** 54540

**Synonyms** None

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

**Recommended Use** Sealant

**Restrictions on use** No information available

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

#### Manufacturer Address

ITW Permatex, Inc.  
6875 Parkland Blvd.  
Solon, Ohio 44139 USA  
Telephone: 1-87-Permatex  
(866) 732-9502

#### May Also Be Distributed by:

ITW Permatex Canada  
101-2360 Bristol Circle  
Oakville, ON Canada L6H 6M5  
Telephone: (800) 924-6994

**E-mail address** mail@permatex.com

### Emergency telephone number

**24 Hour Emergency Phone Number** Chem-Tel: 800-255-3924  
International Emergency:  
00+1+ 813-248-0585  
Contract Number: MIS0003453

**24-hour emergency phone number** No information available

## 2. Hazard(s) identification

### Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 2

### Label elements

**Danger****Hazard statements**

Causes skin irritation.  
 Causes serious eye damage.  
 May cause an allergic skin reaction.  
 May cause cancer.  
 May cause damage to organs through prolonged or repeated exposure.

**Precautionary Statements - Prevention**

Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Use personal protective equipment as required.  
 Wash face, hands and any exposed skin thoroughly after handling.  
 Contaminated work clothing should not be allowed out of the workplace.  
 Do not breathe dust, fume, gas, mist, vapors and spray.

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention.

**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

**Skin**

IF ON SKIN: Wash with plenty of soap and water.  
 Take off contaminated clothing and wash before reuse.  
 If skin irritation or rash occurs: Get medical advice and attention.

**Precautionary Statements - Storage**

Store locked up.

**Precautionary Statements - Disposal**

Dispose of contents and container to an approved waste disposal plant.

0.83 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.  
 42.83 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.  
 68.223 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).  
 68.223 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).  
 68.223 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

**Other Information**

Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

### 3. Composition/information on ingredients

**Substance**

Not applicable.

**Mixture**

Chemical name	CAS No.	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
2-HYDROXYETHYL METHACRYLATE	868-77-9	10-30%	-	-

DIMETHYLBENZYL HYDROPEROXIDE	80-15-9	1-5%	-	-
PROPYLENE GLYCOL	57-55-6	0.5-1.5%	-	-
MALEIC ACID	110-16-7	0.1-1%	-	-
ACRYLIC ACID	79-10-7	0.1-1%	-	-
CUMENE	98-82-8	0.1-1%	-	-
TETRASODIUM EDTA	64-02-8	0.1-1%	-	-

#### 4. First-aid measures

##### Description of first aid measures

<b>General advice</b>	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.
<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur.
<b>Eye contact</b>	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.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.
<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>	Burning sensation. Itching. Rashes. Hives.
<b>Effects of Exposure</b>	May cause cancer. May cause damage to organs through prolonged or repeated exposure.

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

<b>Note to physicians</b>	May cause sensitization in susceptible persons. Treat symptomatically.
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#### 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	Product is or contains a sensitizer. May cause sensitization by skin contact.
<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. Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Other information** Refer to protective measures listed in Sections 7 and 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** Pick up and transfer to properly labeled containers.

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

**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. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Take off contaminated clothing and wash before reuse.

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

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

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

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
ACRYLIC ACID 79-10-7	TWA: 2 ppm Sk*	(vacated) TWA: 10 ppm (vacated) TWA: 30 mg/m <sup>3</sup> (vacated) Sk*	TWA: 2 ppm TWA: 6 mg/m <sup>3</sup>
CUMENE 98-82-8	TWA: 5 ppm	TWA: 50 ppm TWA: 245 mg/m <sup>3</sup> (vacated) TWA: 50 ppm (vacated) TWA: 245 mg/m <sup>3</sup> (vacated) Sk* Sk*	IDLH: 900 ppm TWA: 50 ppm TWA: 245 mg/m <sup>3</sup>

Chemical name	Alberta	British Columbia	Ontario	Quebec
PROPYLENE GLYCOL 57-55-6	-	-	TWA: 10 mg/m <sup>3</sup> TWA: 50 ppm TWA: 155 mg/m <sup>3</sup>	-
ACRYLIC ACID 79-10-7	TWA: 2 ppm TWA: 5.9 mg/m <sup>3</sup> Sk*	TWA: 2 ppm Sk* Adverse reproductive effect	TWA: 2 ppm Sk*	TWA: 2 ppm TWA: 5.9 mg/m <sup>3</sup> Skin
CUMENE 98-82-8	TWA: 50 ppm TWA: 246 mg/m <sup>3</sup>	TWA: 25 ppm STEL: 75 ppm	TWA: 50 ppm	TWA: 5 ppm

Chemical name	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia
ACRYLIC ACID	TWA: 2 ppm Sk*	TWA: 2 ppm Sk*	TWA: 2 ppm Sk*	TWA: 2 ppm Sk*
CUMENE	TWA: 5 ppm	TWA: 50 ppm	TWA: 5 ppm	TWA: 5 ppm

Chemical name	Nunavut	Prince Edward Island	Saskatchewan	Yukon
ACRYLIC ACID	TWA: 2 ppm STEL: 4 ppm Sk*	TWA: 2 ppm	TWA: 2 ppm STEL: 4 ppm Skin	
CUMENE	TWA: 50 ppm STEL: 74 ppm	TWA: 5 ppm	TWA: 50 ppm STEL: 74 ppm	TWA: 50 ppm TWA: 245 mg/m <sup>3</sup> STEL: 75 ppm STEL: 365 mg/m <sup>3</sup> Sk*

### Appropriate engineering controls

**Engineering controls**                      Showers  
 Eyewash stations  
 Ventilation systems.

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

**Eye/face protection**                      Tight sealing safety goggles.

**Hand protection**                              Wear suitable gloves. Impervious gloves.

**Skin and body protection**                      Wear suitable protective clothing. Long sleeved clothing.

**Respiratory protection**                      Appropriate respiratory protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

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

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

### Information on basic physical and chemical properties

**Physical state**                                      Liquid  
**Appearance**                                      No information available  
**Color**    No information available  
**Odor**     No information available  
**Odor threshold**                                    No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No data available	10% in deionized water
<b>Melting point / freezing point</b>	No data available	Estimated
<b>Boiling point / boiling range</b>	200 °C / 392 °F	
<b>Flash point</b>	97 °C / 206.6 °F	Tag Closed Cup
<b>Evaporation rate</b>	Not applicable	Butyl acetate = 1
<b>Flammability (solid, gas)</b>	No data available	Flammable in the presence of the following materials

		or conditions: open flames, sparks and static discharge. None known
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit:</b>	No data available	
<b>Lower flammability limit:</b>	No data available	
<b>Vapor pressure</b>	No Data Available	
<b>Vapor density</b>	No data available	Air = 1
<b>Relative density</b>	1.1	
<b>Water solubility</b>	No data available	Immiscible in water
<b>Solubility(ies)</b>	No Data Available	None known
<b>Partition coefficient</b>	No Data Available	None known
<b>Autoignition temperature</b>	No data available	Estimated
<b>Decomposition temperature</b>	No data available	Remarks: Self-Accelerating decomposition temperature (SADT): 50 °C SADT-Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction. Kinematic viscosity at 100 degrees C
<b>Kinematic viscosity</b>	No Data Available	
<b>Dynamic viscosity</b>	15,000 mPas @ 20°C (68°F)	
<b>Other information</b>		
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	
<b>Softening point</b>	No information available	
<b>Molecular weight</b>	No information available	
<b>VOC content</b>	5.143	
<b>Density</b>	No information available	
<b>Bulk density</b>	No information available	

## 10. Stability and reactivity

<b>Reactivity</b>	No information available.
<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>	Strong acids. Strong bases. Strong oxidizing agents.
<b>Hazardous decomposition products</b>	None known based on information supplied.

## 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 damage. May cause irreversible damage to eyes.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). 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** Redness. Burning. May cause blindness. Itching. Rashes. Hives. May cause redness and tearing of the eyes.

**Acute toxicity**

**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	6,863.50 mg/kg
ATEmix (dermal)	7,528.10 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-vapor)	99,999.00 mg/l
ATEmix (inhalation-dust/mist)	5.31 mg/l

0.83 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
 42.83 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity  
 68.223 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)  
 68.223 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)  
 68.223 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
2-HYDROXYETHYL METHACRYLATE 868-77-9	= 5564 mg/kg ( Rat )	> 5000 mg/kg ( Rabbit )	-
DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	= 382 mg/kg ( Rat )	= 0.126 mL/kg ( Rabbit )	= 220 ppm ( Rat ) 4 h
PROPYLENE GLYCOL 57-55-6	= 20 g/kg ( Rat )	= 20800 mg/kg ( Rabbit )	-
MALEIC ACID 110-16-7	= 708 mg/kg ( Rat )	= 1560 mg/kg ( Rabbit )	> 720 mg/m <sup>3</sup> ( Rat ) 1 h
ACRYLIC ACID 79-10-7	= 1500 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	= 3.6 mg/L ( Rat ) 4 h = 11.1 mg/L ( Rat ) 1 h
CUMENE 98-82-8	= 1400 mg/kg ( Rat )	= 12300 µL/kg ( Rabbit )	> 3577 ppm ( Rat ) 6 h
TETRASODIUM EDTA 64-02-8	= 1658 mg/kg ( Rat )	-	-

**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>	May cause an allergic skin reaction.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

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

Chemical name	ACGIH	IARC	NTP	OSHA
ACRYLIC ACID 79-10-7	-	Group 3	-	-
CUMENE 98-82-8	A3	Group 2B	Reasonably Anticipated	X

**Legend****ACGIH (American Conference of Governmental Industrial Hygienists)**

A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

**NTP (National Toxicology Program)**

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

**Occupational Safety and Health Administration of the US Department of Labor**

X - Present

<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	May cause damage to organs through prolonged or repeated exposure.
<b>Aspiration hazard</b>	No information available.

**12. Ecological information****Ecotoxicity** Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
2-HYDROXYETHYL METHACRYLATE 868-77-9	-	LC50: 213 - 242mg/L (96h, Pimephales promelas) LC50: =227mg/L (96h, Pimephales promelas)	-	-
DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	-	LC50: =3.9mg/L (96h, Oncorhynchus mykiss)	-	-
PROPYLENE GLYCOL 57-55-6	EC50: =19000mg/L (96h, Pseudokirchneriella subcapitata)	LC50: =51600mg/L (96h, Oncorhynchus mykiss) LC50: 41 - 47mL/L (96h, Oncorhynchus mykiss) LC50: =51400mg/L (96h, Pimephales promelas) LC50: =710mg/L (96h, Pimephales promelas)	-	EC50: >1000mg/L (48h, Daphnia magna)
MALEIC ACID 110-16-7	-	LC50: =5mg/L (96h, Pimephales promelas)	-	EC50: 250 - 400mg/L (48h, Daphnia magna)
ACRYLIC ACID 79-10-7	EC50: =0.17mg/L (96h, Pseudokirchneriella subcapitata) EC50: =0.04mg/L (72h, Desmodesmus subspicatus)	LC50: =222mg/L (96h, Brachydanio rerio)	-	EC50: =95mg/L (48h, Daphnia magna)
CUMENE 98-82-8	EC50: =2.6mg/L (72h, Pseudokirchneriella subcapitata)	LC50: 6.04 - 6.61mg/L (96h, Pimephales promelas) LC50: =4.8mg/L (96h, Oncorhynchus mykiss) LC50: =2.7mg/L (96h, Oncorhynchus mykiss)	-	EC50: =0.6mg/L (48h, Daphnia magna) EC50: 7.9 - 14.1mg/L (48h, Daphnia magna)

		LC50: =5.1mg/L (96h, Poecilia reticulata)		
TETRASODIUM EDTA 64-02-8	-	LC50: =41mg/L (96h, Lepomis macrochirus) LC50: =59.8mg/L (96h, Pimephales promelas)	-	-

**Persistence and degradability** No information available.

#### Bioaccumulation

#### Component Information

Chemical name	Partition coefficient
2-HYDROXYETHYL METHACRYLATE 868-77-9	0.42
DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	1.6
PROPYLENE GLYCOL 57-55-6	-1.07
MALEIC ACID 110-16-7	-0.34
ACRYLIC ACID 79-10-7	0.46
CUMENE 98-82-8	3.55

**Other adverse effects** No information available.

### 13. Disposal considerations

#### Waste treatment 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.

**US EPA Waste Number** Waste designations and classifications should be determined by the end user based on the application for which the product was used.

### 14. Transport information

**DOT** Not regulated

**TDG** Not regulated

**MEX** Not regulated

**ICAO (air)** Not regulated

**IATA** Not regulated

**IMDG** 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**

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Not determined
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECI</b>	Complies
<b>PICCS</b>	Not determined
<b>AICS</b>	Complies
<b>NZIoC</b>	Complies

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - 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

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**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 %
DIMETHYLBENZYL HYDROPEROXIDE - 80-15-9	1.0
CUMENE - 98-82-8	0.1

**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
MALEIC ACID 110-16-7	5000 lb	-	-	X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	10 lb	-	RQ 10 lb final RQ RQ 4.54 kg final RQ

MALEIC ACID 110-16-7	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
ACRYLIC ACID 79-10-7	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
CUMENE 98-82-8	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

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

This product contains the following Proposition 65 chemicals:

Chemical name	California Proposition 65
CUMENE - 98-82-8	Carcinogen

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

Chemical name	New Jersey	Massachusetts	Pennsylvania
CUMENE 98-82-8	X	X	X

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**16. Other information**

<b>NFPA</b>	<b>Health hazards</b> 3	<b>Flammability</b> 1	<b>Instability</b> 0	<b>Special hazards</b> -
<b>HMIS</b>	<b>Health hazards</b> 3 *	<b>Flammability</b> 1	<b>Physical hazards</b> 0	<b>Personal protection</b> X

Chronic Hazard Star Legend \* = Chronic Health Hazard

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

SVHC: Substances of Very High Concern for Authorization:  
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances  
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances  
STOT: Specific Target Organ Toxicity  
ATE: Acute Toxicity Estimate  
LC50: 50% Lethal Concentration  
LD50: 50% Lethal Dose

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitizers		

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

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
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)  
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)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision Date** 06-Dec-2024

**Revision Note** No information available.

**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.**