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 03-Feb-2025 **Version** 1

1. Identification

Product identifier

Product Name SUPER PENETRANT 12OZ.

Other means of identification

Product Code 80052

UN number or ID number 1950

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Penetrant

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

Aerosols	Category 1
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1B
Aspiration hazard	Category 1

Label elements

Contains DISTILLATES (PETROLEUM), HYDROTREATED LIGHT; SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPH.

Danger

Hazard statements
Extremely flammable aerosol.
Pressurized container: May burst if heated.
May cause genetic defects.
May cause cancer.
May be fatal if swallowed and enters airways.

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.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Pressurized container: Do not pierce or burn, even after use.
Do not spray on an open flame or other ignition source.
Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention.
Ingestion
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
Do NOT induce vomiting.

Precautionary Statements - Storage
Store locked up.
Protect from sunlight. Store in a well-ventilated place.
Do not expose to temperatures exceeding 50 °C/122 °F.
Precautionary Statements - Disposal
Dispose of contents and container in accordance with local, regional, national, and international regulations as applicable.

25 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
54 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
89 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
99 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
99 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Other Information
May be harmful in contact with skin. Toxic 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**	**Date HMIRA filed and date exemption granted (if applicable)**

			(HMIRA registry #)	
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT	64742-47-8	15-40%	-	-
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPH.	64742-89-8	10-30%	-	-
PROPANE	74-98-6	3-7%	-	-
BUTANE	106-97-8	3-7%	-	-
OCTANE	111-65-9	0.1-1%	-	-
HEPTANE	142-82-5	0.1-1%	-	-

4. First-aid measures

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention. Immediate medical attention is required.

Inhalation Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur.

Eye contact 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.

Skin contact In case of contact with liquefied gas, thaw frosted parts with lukewarm water.

Ingestion ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness.

Effects of Exposure May cause cancer. Mutagenic effects.

Indication of any immediate medical attention and special treatment needed

Note to physicians Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances.

5. Fire-fighting measures

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Water spray.

Small Fire In case of fire, use water spray, foam, dry chemical, or CO2.
Large Fire In case of fire, use water spray, foam, dry chemical, or CO2.

Unsuitable extinguishing media DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

Specific hazards arising from the chemical Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers may explode when heated. Ruptured cylinders may rocket.

Hazardous combustion products No information available.

Explosion data
Sensitivity to mechanical impact Yes.
Sensitivity to static discharge Yes.

Special protective equipment and precautions for fire-fighters 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 Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. Contents under pressure. Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Flood with water to complete polymerization and scrape off floor.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. 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 Use personal protection equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use spark-proof tools and explosion-proof equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Keep in an area equipped with sprinklers. Do not puncture or incinerate cans. Contents under pressure. In case of rupture. Avoid breathing vapors or mists. Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. 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.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from sunlight.

Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials.

8. Exposure controls/personal protection

Control Parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPH. 64742-89-8	TWA: 100 ppm Sk*	-	-
PROPANE 74-98-6	: See Appendix F: Minimal Oxygen Content, explosion hazard Simple asphyxiant	TWA: 1000 ppm TWA: 1800 mg/m³ (vacated) TWA: 1000 ppm (vacated) TWA: 1800 mg/m³	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m³
BUTANE 106-97-8	STEL: 1000 ppm explosion hazard	(vacated) TWA: 800 ppm (vacated) TWA: 1900 mg/m³	IDLH: 1600 ppm TWA: 800 ppm TWA: 1900 mg/m³
OCTANE 111-65-9	TWA: 300 ppm	TWA: 500 ppm TWA: 2350 mg/m³ (vacated) TWA: 300 ppm (vacated) TWA: 1450 mg/m³ (vacated) STEL: 375 ppm (vacated) STEL: 1800 mg/m³	IDLH: 1000 ppm Ceiling: 385 ppm 15 min Ceiling: 1800 mg/m³ 15 min TWA: 75 ppm TWA: 350 mg/m³
HEPTANE 142-82-5	TWA: 400 ppm STEL: 500 ppm	TWA: 500 ppm TWA: 2000 mg/m³ (vacated) TWA: 400 ppm (vacated) TWA: 1600 mg/m³ (vacated) STEL: 500 ppm (vacated) STEL: 2000 mg/m³	IDLH: 750 ppm Ceiling: 440 ppm 15 min Ceiling: 1800 mg/m³ 15 min TWA: 85 ppm TWA: 350 mg/m³

Chemical name	Alberta	British Columbia	Ontario	Quebec
PROPANE 74-98-6	TWA: 1000 ppm	Simple asphyxiant	TWA: Simple asphyxiant (See Appendix F: Minimal Oxygen Content;explosion hazard)	Simple asphyxiant
BUTANE 106-97-8	TWA: 1000 ppm	STEL: 1000 ppm	TWA: STEL: 1000 ppm	TWA: 800 ppm TWA: 1900 mg/m³
OCTANE 111-65-9	TWA: 300 ppm TWA: 1400 mg/m³	TWA: 300 ppm	TWA: 300 ppm	TWA: 300 ppm
HEPTANE 142-82-5	TWA: 400 ppm TWA: 1640 mg/m³ STEL: 500 ppm STEL: 2050 mg/m³	TWA: 400 ppm STEL: 500 ppm	TWA: 400 ppm STEL: 500 ppm	TWA: 400 ppm STEL: 500 ppm

Chemical name	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPH.	TWA: 100 ppm Sk*		TWA: 100 ppm Sk*	TWA: 100 ppm Sk*
PROPANE	TWA: Simple asphyxiant (See	TWA:	TWA:	TWA: Simple asphyxiant

Chemical name	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia
	Appendix F: Minimal Oxygen Content)			
BUTANE	STEL: 1000 ppm	STEL: 1000 ppm	STEL: 1000 ppm	STEL: 1000 ppm
OCTANE	TWA: 300 ppm	TWA: 300 ppm	TWA: 300 ppm	TWA: 300 ppm
HEPTANE	TWA: 400 ppm STEL: 500 ppm	TWA: 400 ppm STEL: 500 ppm	TWA: 400 ppm STEL: 500 ppm	TWA: 400 ppm STEL: 500 ppm

Chemical name	Nunavut	Prince Edward Island	Saskatchewan	Yukon
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPH.		TWA: 100 ppm		
PROPANE	TWA: 1000 ppm STEL: 1250 ppm	TWA:	TWA: 1000 ppm STEL: 1250 ppm	Simple asphyxiant
BUTANE	TWA: 1000 ppm STEL: 1250 ppm	STEL: 1000 ppm	TWA: 1000 ppm STEL: 1250 ppm	TWA: 600 ppm TWA: 1400 mg/m^3 STEL: 750 ppm STEL: 1600 mg/m^3
OCTANE	TWA: 300 ppm STEL: 375 ppm	TWA: 300 ppm	TWA: 300 ppm STEL: 375 ppm	TWA: 300 ppm TWA: 1450 mg/m^3 STEL: 375 ppm STEL: 1800 mg/m^3
HEPTANE	TWA: 400 ppm STEL: 500 ppm	TWA: 400 ppm STEL: 500 ppm	TWA: 400 ppm STEL: 500 ppm	TWA: 400 ppm TWA: 1600 mg/m^3 STEL: 500 ppm STEL: 2000 mg/m^3

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

Impervious gloves. Wear suitable gloves.

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

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

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

Thermal hazards

No information available.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Aerosol
Appearance	Dark
Color	No information available
Odor	Solvent
Odor threshold	No information available

Property	**Values**	**Remarks • Method**
pH	No data available	**Melting point / freezing point** No data available
Boiling point / boiling range	No data available	
Flash point	-104 °C / -155.2 °F	Gives a flame projection at full valve opening or flashback at any degree of valve opening
Evaporation rate	Not applicable	**Flammability (solid, gas)** No data available
Flammability Limit in Air		**Upper flammability limit:** 7.3%
		Lower flammability limit: 1.0%
		Vapor pressure 20-30 psig @ 20°C
		Vapor density No data available
Relative density	0.798	
Water solubility	No data available None known No information available	
Solubility(ies)	No Data Available	**Partition coefficient** No Data Available
Autoignition temperature	345.78°C (654.4°F)	
Decomposition temperature	No data available	**Kinematic viscosity** No Data Available
Dynamic viscosity	No data available	

Other information

Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
VOC content	11
Density	No information available
Bulk density	No information available

10. Stability and reactivity

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Hazardous polymerization No information available.

Conditions to avoid Heat, flames and sparks. Excessive heat.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract.

Eye contact Specific test data for the substance or mixture is not available. May cause irritation.

Skin contact Repeated exposure may cause skin dryness or cracking. May be harmful in contact with skin.

Ingestion Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness.

Acute toxicity .

Numerical measures of toxicity

The following ATE values have been calculated for the mixture

ATEmix (oral)	5,067.60 mg/kg
ATEmix (dermal)	2,300.00 mg/kg
ATEmix (inhalation-gas)	255,439.50 ppm
ATEmix (inhalation-vapor)	99,999.00 mg/l
ATEmix (inhalation-dust/mist)	99,999.00 mg/l

25 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
54 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
89 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
99 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
99 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPH. 64742-89-8	-	= 3000 mg/kg (Rabbit)	-
PROPANE 74-98-6	-	-	> 800000 ppm (Rat) 15 min
BUTANE 106-97-8	-	-	= 658 g/m^3 (Rat) 4 h
OCTANE 111-65-9	-	-	> 24.88 mg/L (Rat) 4 h
HEPTANE 142-82-5	-	= 3000 mg/kg (Rabbit)	> 29.29 mg/L (Rat) 4 h

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

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity Contains a known or suspected mutagen. Classification based on data available for ingredients. May cause genetic defects.

Carcinogenicity 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
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPH. 64742-89-8	A3	-	-	-

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard May be fatal if swallowed and enters airways.

Other adverse effects No information available.

Neurological effects No information available.

12. Ecological information

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

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT 64742-47-8	-	LC50: =45mg/L (96h, Pimephales promelas) LC50: =2.2mg/L (96h, Lepomis macrochirus) LC50: =2.4mg/L (96h, Oncorhynchus mykiss)	-	-
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPH. 64742-89-8	EC50: =4700mg/L (72h, Pseudokirchneriella subcapitata)	-	-	-
OCTANE 111-65-9	-	-	-	EC50: =0.38mg/L (48h, water flea)
HEPTANE 142-82-5	-	LC50: =375.0mg/L (96h, Cichlid fish)	-	-

Persistence and degradability No information available.

Bioaccumulation

Component Information

Chemical name	Partition coefficient
PROPANE 74-98-6	1.09
BUTANE 106-97-8	2.31
OCTANE 111-65-9	5.18
HEPTANE 142-82-5	4.66

Other adverse effects No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Should not be released into the environment. 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

UN number or ID number 1950
Proper shipping name Aerosols, Limited Quantity (LQ)
Transport hazard class(es) 2.1
Emergency Response Guide Number 126

TDG

UN number or ID number 1950
UN proper shipping name Aerosols Limited Quantity (LQ)
Transport hazard class(es) 2.1

MEX

UN number or ID number 1950
UN proper shipping name Aerosols Limited Quantity (LQ)
Transport hazard class(es) 2.1

UN number or ID number 1950
UN proper shipping name Aerosols Limited Quantity (LQ)
Transport hazard class(es) 2.1

IATA

UN number or ID number ID 8000
UN proper shipping name Consumer Commodity
Transport hazard class(es) 9
Packing group Not applicable

IMDG

UN number or ID number 1950
UN proper shipping name Limited Quantity (LQ) Alcohols, n.o.s.

Transport hazard class(es)	2.1
Packing group	Not applicable

15. Regulatory information

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

International Regulations

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

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECI	Complies
PICCS	Complies
AICS	Complies
NZIoC	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 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 does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

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 does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
PROPANE 74-98-6	X	X	X
BUTANE 106-97-8	X	X	X
OCTANE 111-65-9	X	X	X
HEPTANE 142-82-5	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA **Health hazards** 2 **Flammability** 4 **Instability** 0 **Special hazards** -
HMIS **Health hazards** 3 * **Flammability** 4 **Physical hazards** 3 **Personal protection** 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 03-Feb-2025

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.