



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
HPR, Schedule 1

Revision date 27-Feb-2026

Revision Number 1

1. Identification

Product identifier

Product Name 1,2,3,7,8-Pentachlorodibenzo-p-dioxin 50 µg/mL in Toluene

Other means of identification

Product Code(s) DRE-A20426540TO-50

Recommended use of the chemical and restrictions on use

Recommended use Laboratory use

Restrictions on use No information available

Details of the supplier of the safety data sheet

Initial supplier identifier

Toronto Research Chemicals
101 Milani Blvd.,
Vaughan, Ontario
L4H 4M4

Emergency number: +1(416) 665-9696 between 0800-1700 (GMT-5)

Fax: +14166654439

Web: www.lgcstandards.com

E-mail sds-request@lgcgroup.com

Emergency telephone number

Emergency Telephone

For Hazardous Materials or Dangerous Goods Incident

Spill, Leak, Fire Exposure, or Accident

Call CHEMTREC:

USA & Canada 1-800-424-9300

Rest of the world +1 703-741-3877

2. Hazard identification

Classification of the substance or mixture

Classification according to WHMIS.

Flammable liquids	Category 2
Skin corrosion/irritation	Category 2
Reproductive toxicity	Category 2



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Specific target organ toxicity — single exposure	Category 3
Category 3 Target organ effects: Narcotic effects.	
Specific target organ toxicity — repeated exposure	Category 2
Aspiration hazard	Category 1

Label elements



Danger

Hazard statements

Classification according to WHMIS.
Highly flammable liquid and vapour.
Causes skin irritation.
Suspected of damaging fertility or the unborn child.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.
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.
Wear protective gloves, protective clothing, eye protection and face protection.
Wash face, hands and any exposed skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Do not breathe dust.
Ground and bond container and receiving equipment.
Use non-sparking tools.
Take action to prevent static discharges.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Keep cool.

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention.
Specific treatment (see supplemental first aid instructions on this label).

Skin

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



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

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTRE or doctor if you feel unwell.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor.
Do NOT induce vomiting.

Fire

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Precautionary Statements - Storage

Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.

Precautionary Statements - Disposal

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

Other information

No information available.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical nature Mixture of organic compounds.

Chemical name	CAS No.	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Toluene	108-88-3	90 - 100%	-	

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.



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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. Keep eye wide open while rinsing. Do not rub affected area.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. 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. Use personal protective equipment as required. See section 8 for more information. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Erythema (skin redness). May cause redness and tearing of the eyes. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Effects of Exposure	May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility. May cause damage to organs through prolonged or repeated exposure.

Indication of any immediate medical attention and special treatment needed

Note to doctors	Because of the danger of aspiration, emesis or gastric lavage should not be used unless the risk is justified by the presence of additional toxic substances.
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5. Fire-fighting measures

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO ₂). Water spray. Alcohol resistant foam.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
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.



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Explosion data

Sensitivity to mechanical impact None.

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). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

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. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up

Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled 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. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety



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practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash it before reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. 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.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled 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	Alberta	British Columbia	Ontario	Quebec
Toluene 108-88-3	TWA: 50 ppm; TWA: 188 mg/m ³ ; pSk	TWA: 20 ppm Adverse reproductive effect	TWA: 20 ppm;	TWA: 20 ppm

Chemical name	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia
Toluene	TWA: 20 ppm	TWA: 20 ppm	TWA: 20 ppm;	TWA: 20 ppm;

Chemical name	Nunavut	Prince Edward Island	Saskatchewan	Yukon
Toluene	TWA: 50 ppm; STEL: 60 ppm; Sk	TWA: 20 ppm;	TWA: 50 ppm STEL: 60 ppm Skin	TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 560 mg/m ³ Sk*



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Note See section 16 for terms and abbreviations.

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Avoid contact with eyes. Wear safety glasses with side shields (or goggles). Tight sealing safety goggles.

Hand protection Wear protective Viton™ gloves. The protective gloves to be used must comply with the specifications of SOR/86-304. Wear suitable gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Antistatic boots. Chemical resistant apron. Wear fire/flame resistant/retardant 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.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance Liquid
Physical state Liquid
Colour colourless
Odour Aromatic

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	-95 °C	None known
Initial boiling point and boiling range	110.6 °C	None known
Flammability		None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	7.8 Vol% - 300 g/m ³	
Lower flammability or explosive limits	1% - 39 g/m ³	
Flash point	4 °C	None known
Autoignition temperature	535 °C	None known
Decomposition temperature	No data available	None known



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SADT (°C)	No data available	None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	0.6 mPa s	@ 20°C
Water solubility		None known
Solubility(ies)	No data available	None known
Partition Coefficient (n-octanol/water)	2.7	None known
Vapour pressure	29.1 hPa	@ 20°C
Relative density	0.87	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapour density	3.18	None known
Particle characteristics		None known
Particle Size	No data available	
Particle Size Distribution	No data available	

Other information

Information with regards to physical hazard classes

10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong acids. Strong bases. Strong oxidising agents.
Hazardous decomposition products	None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause drowsiness or dizziness.
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. Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Potential for aspiration if



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swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Erythema (skin redness). May cause redness and tearing of the eyes. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Acute toxicity No information available.

Numerical measures of toxicity

No information available

The following ATE values have been calculated for the mixture

ATEmix (oral)	99,999.000 mg/kg
ATEmix (dermal)	99,999.00 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-dust/mist)	99,999.00 mg/l
ATEmix (inhalation-vapour)	99,999.00 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Toluene 108-88-3	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h

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

Skin corrosion/irritation Classification based on data available for ingredients. Causes skin irritation.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

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

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

Chemical name	ACGIH	IARC	NTP	OSHA
Toluene 108-88-3	-	Group 3	-	-



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Reproductive toxicity	Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.
STOT - single exposure	May cause drowsiness or dizziness.
STOT - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	May be fatal if swallowed and enters airways.

12. Ecological information

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

Aquatic ecotoxicity

Component Information

Chemical name	Fish	Crustacea	Algae/aquatic plants	Toxicity to microorganisms
Toluene	LC50: 15.22 - 19.05mg/L (96h, Pimephales promelas) LC50: =12.6mg/L (96h, Pimephales promelas) LC50: 5.89 - 7.81mg/L (96h, Oncorhynchus mykiss) LC50: 14.1 - 17.16mg/L (96h, Oncorhynchus mykiss) LC50: =5.8mg/L (96h, Oncorhynchus mykiss) LC50: 11.0 - 15.0mg/L (96h, Lepomis macrochirus) LC50: =54mg/L (96h, Oryzias latipes) LC50: =28.2mg/L (96h, Poecilia reticulata) LC50: 50.87 - 70.34mg/L (96h, Poecilia reticulata)	EC50: 5.46 - 9.83mg/L (48h, Daphnia magna) EC50: =11.5mg/L (48h, Daphnia magna)	EC50: =12.5mg/L (72h, Pseudokirchneriella subcapitata) EC50: >433mg/L (96h, Pseudokirchneriella subcapitata)	-



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Chemical name	Earthworm	Avian	Honeybees
Toluene	-	-	-

Persistence and degradability No information available.

Bioaccumulative potential

Chemical name	Partition coefficient	Bioconcentration factor (BCF)	Trophic magnification factor (TMF)
Toluene	2.7	-	-

Mobility in soil No information available.

Other adverse effects No information available.

13. Disposal considerations

Disposal 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 Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

14. Transport information

TDG

UN number or ID number UN1294
UN proper shipping name Toluene mixture
Transport hazard class(es) 3
Packing group II
Description UN1294, Toluene mixture, 3, II

DOT

UN number or ID number UN1294



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Extended proper shipping name Toluene mixture
Transport hazard class(es) 3
Packing group II
Reportable quantity (kg) (Toluene: RQ (kg)= 454.00) Toluene: RQ (lb)= 1000.00
Reportable quantity (kg) (calculated) Toluene: RQ (kg)= 454.02
Reportable quantity (lbs) (calculated) Toluene: RQ (lb)= 1000.00
DOT Marine Pollutant NP.
Description UN1294, Toluene mixture, 3, II
Special Provisions IB2, T4, TP1
Emergency Response Guide Number 130

ICAO (air)

UN number or ID number UN1294
UN proper shipping name Toluene mixture
Transport hazard class(es) 3
Packing group II
Description UN1294, Toluene mixture, 3, II

IATA

UN number UN1294
UN proper shipping name Toluene mixture
Transport hazard class(es) 3
Packing group II
ERG Code 3L
Description UN1294, Toluene mixture, 3, II

IMDG

UN number UN1294
UN proper shipping name Toluene mixture
Transport hazard class(es) 3
Packing group II
EmS-No. F-E, S-D
Marine pollutant indicator NP
Description UN1294, Toluene mixture, 3, II, (4°C c.c.)

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



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The Rotterdam Convention Not applicable

TSCA LGC has not confirmed that the chemical substances in this product are on the TSCA Inventory, and LGC is distributing this product solely for use either in applications statutorily exempt from TSCA and regulated under other laws (e.g., FFDC, FIFRA) or in research and development activities in accordance with the TSCA Inventory R&D exemption provided at 40 CFR 720.36. It is the end-user's responsibility to understand and follow the requirements that apply to its use of this product.

Chemical name	CAS No.	US TSCA Inventory listing	US TSCA inactive/active designation
Toluene	108-88-3	Present	Active
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	-	-

*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

International Inventories

DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AIC	Contact supplier for inventory compliance status.
NZIoC	Contact supplier for inventory compliance status.
TCSI	Contact supplier for inventory compliance status.

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 and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals
TCSI - Taiwan Chemical Substance Inventory

16. Other information

NFPA	Health hazards 2	Flammability 3	Instability 0	Special hazards -
HMIS	Health hazards 3 *	Flammability 3	Physical hazards 0	Personal protection X
Chronic Hazard Star Legend	* = Chronic Health Hazard			



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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	The American Conference of Governmental Industrial Hygienists (ACGIH) Documentation of Threshold Limit Values and Biological Indices (latest edition)
ADN	European Agreement on International Transport of Dangerous Goods by Road (ADR)
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AiIC	Australian Inventory of Industrial Chemicals
P240 - Ground and bond container and receiving equipment	Acute Toxicity Estimate
P263 - Avoid contact during pregnancy and while nursing	ASTM (formerly known as the American Society for Testing and Materials)
bar	Biological Reference Values for Chemical Compounds in the Work Area
paste	Biological tolerance values for occupational exposure
MEX	Biological exposure limits
European Export/Import Restrictions per (EC) 649/2012 - Annex Number	Body weight
Ceiling	Maximum limit value
CMR Effects	CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
DOT	DOT (Department of Transportation)
DSL	Canadian Domestic Substances List (DSL)
EmS	Emergency Schedule
ENCS	ENCS (Existing and New Chemical Substances)
EPA	EPA (Environmental Protection Agency)
GHS	The Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
HMIS	Hazardous Materials Identification System
IARC	IARC - International Agency for Research on Cancer
IATA	(IATA) International Air Transport Association
IBCs	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO	The transportation of primary lithium cells and batteries is regulated by the International Civil Aviation Organization, International Air Transport Association, International Maritime Dangerous Goods Code and the US Department of Transportation. The batteries must meet the following criteria for shipment: 1. Air shipments must meet the requirements listed in Special Provision A45 of the International Air Transport Association Dangerous Goods Regulations. 2. Meet the requirements for the US Department of Transportation listed in 49 CFR 173.185. 3. The transport of primary lithium batteries is prohibited aboard passenger aircraft. Refer to the Federal Register December 15, 2004 (Hazardous Materials; Prohibited on the Transportation of Primary Lithium Batteries and Cells Aboard Passenger Aircraft; Final Rule)
IECSC	China (IECSC)
IMDG	Sea transport (IMDG)
Directive 84/449/EEC, Annex, C.10	International Maritime Organization
Directive 84/449/EEC, Annex, A.7	ISO (The International Organization for Standardisation)
KECL	South Korea (KECL)



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LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
Harmful Substances - names to be indicated on the label; Industrial Safety and Health Law enforcement order article 18 (related to Industrial Safety and Health Law article 57)	International Convention for the Prevention of Pollution from Ships
NFPA	National Fire Protection Association
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	NOAEL (No observed adverse effect level)
Other names	No Observable Effect Loading Rate
NZIoC	NZIoC - New Zealand Inventory of Chemicals
Harmful Substances - names to be indicated on the label; Industrial Safety and Health Law enforcement order article 18 (related to Industrial Safety and Health Law article 57)	OECD (Organization for Economic Cooperation and Development)
OEL	Occupational exposure limits
PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	PICCS - Philippines Inventory of Chemicals and Chemical Substances
Chemically unstable gas A	Persistent, Mobile and Toxic
Terrestrial ecotoxicity	Personal protective equipment
QSAR	Quantitative Structure Activity Relationships [QSAR]
RID	Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
SADT	Self-Accelerating Decomposition Temperature
SAR	Structure-activity relationship
SDS	Safety Data Sheet
SL	Surface Limit
STEL	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	TDG (Transport of Dangerous Goods) Canada
TSCA	TSCA (Toxic Substances Control Act)
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



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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

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGl(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan National Institute of Technology and Evaluation (NITE)
Australian 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)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 27-Feb-2026

Revision Note No information available.

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End of Safety Data Sheet