

SAFETY DATA SHEET

Section 1 - Identification

Product Identifier

Product Name <u>trans-1,2-Dibromocyclohexane</u>

CAS No 7429-37-0

Synonyms None listed.

Molecular FormulaC6 H10 Br2Molecular Weight241.95

Recommended Use Laboratory chemicals. Uses advised against No Information available

Product Code H53456

Address Thermo Fisher Scientific New Zealand Ltd

244 Bush Road, Albany, Auckland, New Zealand

Emergency Tel. CHEMTREC®

09 980 6780 or +64 9 980 6780

Telephone / Fax Numbers Tel: 09 980 6700

Fax: 09 980 6788

E-mail address <u>ANZinfo@thermofisher.com</u>

Section 2 - Hazard(s) Identification

Classification under Work Safe New Zealand

Not classified as hazardous according to criteria of EPA New Zealand

GHS Classification

Physical hazards

Based on available data, the classification criteria are not met

Health hazards

Based on available data, the classification criteria are not met

Environmental hazards

Based on available data, the classification criteria are not met

<u>Label Elements</u> None required

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Other hazards which do not result in classification

Section 3 - Composition and Information on Ingredients

Component	CAS No	Weight %
trans-1,2-Dibromocyclohexane	7429-37-0	99

Section 4 - First Aid Measures

Description of first aid measures

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Inhalation Remove from exposure, lie down. Remove to fresh air.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin ContactWash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes.

Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink

plenty of water. If possible drink milk afterwards.

Self-Protection of the First Aider No special precautions required.

First Aid Facilities Eyewash, safety shower and washroom.

Most important symptoms and

effects

Difficulty in breathing. Inhalation of high vapor concentrations may cause symptoms like

headache, dizziness, tiredness, nausea and vomiting

Notes to Physician Treat symptomatically. Symptoms may be delayed.

Section 5 - Fire Fighting Measures

Suitable Extinguishing Media

Water spray. Carbon dioxide (CO₂). Dry chemical. Alcohol resistant foam.

Extinguishing media which must not be used for safety reasons

No information available.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products

Thermal decomposition can lead to release of irritating gases and vapors, Carbon monoxide (CO), Carbon dioxide (CO₂), Hydrogen halides.

Special protective equipment and precautions for fire fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

Section 6 - Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

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Emergency procedures

Ensure adequate ventilation.

Environmental Precautions

See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Sweep up and shovel into suitable containers for disposal.

Precautions to prevent secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations

Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

Section 7 - Handling and Storage

Precautions for Safe Handling

Advice on safe handling

Avoid contact with skin and eyes. Avoid contact with skin and clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Avoid breathing vapors or mists. Do not ingest. If swallowed then seek immediate medical assistance. Wash thoroughly after handling.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

Incompatible Materials

Strong oxidizing agents. Strong bases. Oxidizing agent.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

Section 8 - Exposure Controls and Personal Protection

Control parameters

Exposure limits

The product does not contain any hazardous materials with occupational exposure limits established.

Biological limit values

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

Appropriate engineering controls

Engineering Measures

None under normal use conditions.

Individual protection measures, such as personal protective equipment

Eye Protection Wear safety glasses with side shields (or goggles) (Australian/New Zealand Standard

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AS/NZS 1337 - Eye protectors for Industrial applications)

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	AUS/NZ Standard	Glove comments
Viton (R).	See manufacturers	-	AS/NZS 2161	(minimum requirement)
	recommendations			

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection Long sleeved clothing

Repiratory Protection Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or

> other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use

> > @ 100 mmHg

and maintenance of repiratory protective devices

Particle filter (or AUS/NZ equivalent) Recommended Filter type:

Recommended half mask:-Valve filtering: EN405 or Half mask: EN140 plus filter, EN 141 (or AUS/NZ equivalent)

Handle in accordance with good industrial hygiene and safety practice. **Hygiene Measures**

Environmental exposure controls No information available.

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties

Liquid **Physical State**

Light yellow **Appearance** Odor Odorless

Odor Threshold No data available рΗ No information available

Melting Point/Range No data available **Softening Point** No data available **Boiling Point/Range** 145 °C / 293 °F

Flammability (liquid) No data available

Flammability (solid,gas) Not applicable

Liquid **Explosion Limits** No data available

> 110 °C / > 230 °F Flash Point Method - No information available

Autoignition Temperature No data available **Decomposition Temperature** No data available **Viscosity** No data available No information available **Water Solubility** Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Vapor Pressure No information available

Density / Specific Gravity 1.780

Bulk Density Not applicable Liquid **Vapor Density** 8.34 (Air = 1.0)

Particle characteristics Not applicable (liquid)

Other information

Molecular Formula C6 H10 Br2

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Section 10 - Stability and Reactivity

Reactivity None known, based on information available

Stability Stable under normal conditions.

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Hazardous Polymerization No information available.

Hazardous ReactionsNo information available.

Conditions to Avoid Incompatible products.

Incompatible Materials Strong oxidizing agents, Strong bases, Oxidizing agent.

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapors. Carbon

monoxide (CO). Carbon dioxide (CO2). Hydrogen halides.

Section 11 - Toxicological Information

Acute Effects

Information on likely routes of exposure

Product Information No acute toxicity information is available for this product

InhalationAvoid breathing vapors or mists.EyesNot an expected route of exposure.

Skin Prolonged skin contact may defat the skin and produce dermatitis.

Ingestion No known effect based on information supplied.

Numerical measures of toxicity

(a) acute toxicity;

Oral No data available
Dermal No data available
Inhalation No data available

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;

RespiratoryNo data availableSkinNo data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

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There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; No data available

Symptoms / effects,both acute and delayed

Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Section 12 - Ecological Information

Ecotoxicity

Aquatic ecotoxicity Contains no substances known to be hazardous to the environment or that are not

degradable in waste water treatment plants.

Terrestrial ecotoxicity There is no data for this product

Persistence and Degradability No information available

Bioaccumulative Potential No information available

Mobility No information available.

Other adverse effects

Endocrine Disruptor Information Persistent Organic Pollutant Ozone Depletion Potential This product does not contain any known or suspected endocrine disruptors

This product does not contain any known or suspected substance This product does not contain any known or suspected substance

Section 13 - Disposal Considerations

Waste treatment methods

Waste from Residues/Unused

Products

Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure

conformity with all applicable regulations.

Contaminated Packaging Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use

empty containers.

Other Information Disposal agencies or waste contractors must comply with the New Zealand Hazardous

Substances (Disposal) Regulations .

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Section 14 - Transport Information

NZS 5433:2020 Not regulated

IATA Not regulated

IMDG/IMO Not regulated

Environmental hazards No hazards identified

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable, packaged goods

Special Precautions No special precautions required. Please refer to the applicable dangerous goods

regulations for additional information.

Additional information None known

Section 15 - Regulatory Information

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

National Regulations

There are no applicable tolerable exposure limits or environmental exposure limits according to the EPA Controls for Hazardous Substances

Certified handlers, tracking and controlled substance license requirements

Certified handlers are required for some substances. This includes substances requiring a controlled substance license, and most explosives, vertebrates toxic agents, and certain fumigants. Acutely toxic substances which are a Category 1 or 2, such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information. Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information.

Prohibition or notification/licensing requirements

Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

International Regulations

Ozone Depletion Potential This product does not contain any known or suspected substance

Persistent Organic Pollutant This product does not contain any known or suspected substance

Rotterdam Convention (PIC) Not applicable

Authorisation/Restrictions according to EU REACH

Not applicable

International Inventories

New Zealand (NZIoC), Australia (AICS), Europe (EINECS/ELINCS/NLP), Korea (KECL), China (IECSC), Taiwan (TCSI), Japan (ENCS), Japan

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(ISHL), Canada (DSL/NDSL), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	NZIoC	AICS	EINECS	ELINCS	NLP	KECL	IECSC	TCSI
trans-1,2-Dibromocyclohexane	7429-37-0	-	-	-	-	-	-	-	Х

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	PICCS	ISHL	ENCS
trans-1,2-Dibromocyclohexane	7429-37-0	ı	•	-	-	-	ı	-

Legend: X - Listed '-' - Not Listed KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

Section 16 - Other Information

This safety data sheet complies with the requirements of the EPA Hazardous Substances (Hazard Classification) Notice 2020 and WorkSafe New Zealand Regulations

Legend

NZIoC - New Zealand Inventory of Chemicals

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

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

IECSC - Chinese Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

NZS 5433:2020 - Transport of Dangerous Goods on Land

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from Ships

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%
WEL - Workplace Exposure Limit
DNEL - Derived No Effect Level

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

VOC - (Volatile Organic Compound)

AICS - Australian Inventory of Chemical Substances

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

CAS - Chemical Abstracts Service

ACGIH - American Conference of Governmental Industrial Hygienists

PNEC - Predicted No Effect Concentration

OECD - Organisation for Economic Co-operation and Development **IMO/IMDG** - International Maritime Organization/International Maritime

Dangerous Goods Code

ADG - Australian Code for the Transport of Dangerous Goods by Road and Rail

LC50 - Lethal Concentration 50%

ATE - Acute Toxicity Estimate

RPE - Respiratory Protective Equipment **NOEC** - No Observed Effect Concentration

PCE Disconnection factor

BCF - Bioconcentration factor

PBT - Persistent, Bioaccumulative, Toxic

Key literature references and sources for data

HSNO classifications provided in the New Zealand Chemical Classification Information Database (CCID).

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

EPA Guide to classifying hazardous substances in New Zealand

EPA - Assigning a product to an existing HSNO approval guide

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Revision Date 13-Mar-2023 Revision Summary Not applicable

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

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End of Safety Data Sheet

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