Honeywell
Riedel-de Haën™

Methylcyclohexane

259691-2L

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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product information

Trade name	:	Methylcyclohexane
Number	:	000000020873
Recommended use of the chemical and restrictions on use	:	Laboratory chemicals
Manufacturer or supplier's details	:	Honeywell Specialty Chemicals Seelze GmbH Wunstorfer Straße 40 Seelze, 30926
For further information, please contact:	:	1-800-368-0050 +1-231-726-3171 (Monday-Friday, 9:00am-5:00pm)
In case of emergency call	:	**Medical: 1-800-498-5701 or +1-303-389-1414** **Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887** **In Japan: +(81)-345209637** (24 hours/day, 7 days/week)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification of the substance or mixture : Flammable liquids, Category 2
Skin irritation, Category 2
Specific target organ toxicity - single exposure, Category 3
Aspiration hazard, Category 1
Acute aquatic toxicity, Category 1
Chronic aquatic toxicity, Category 1

GHS Label elements, including precautionary statements

Symbol(s) :

Signal word : Danger

Hazard statements : Highly flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause drowsiness and dizziness.
Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear eye protection/ face protection.

Response:
IF SWALLOWED: Immediately call a POISON CENTER/doctor.
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell.
Specific treatment (see supplemental first aid instructions on this label).
Do NOT induce vomiting.
If skin irritation occurs: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Collect spillage.

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

Disposal:
Dispose of contents/ container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C7H14

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
Methylcyclohexane Methylcyclohexane	108-87-2	100.00 %

4. FIRST AID MEASURES

General advice : First aider needs to protect himself.
Move out of dangerous area.
Take off all contaminated clothing immediately.

Inhalation : If breathed in, move person into fresh air.
Call a physician immediately.

Skin contact : After contact with skin, wash immediately with plenty of soap and water.
If symptoms persist, call a physician.

Eye contact : Rinse thoroughly with plenty of water, also under the eyelids.
Protect unharmed eye.
Remove contact lenses.
Call a physician immediately.

Ingestion : Clean mouth with water and drink afterwards plenty of water.
Do NOT induce vomiting.
Call a physician immediately.

5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray
Foam
Carbon dioxide (CO2)
Dry powder

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

Specific hazards during firefighting : Flammable.
Vapours may form explosive mixtures with air.
Vapours are heavier than air and may spread along floors.
Vapors may travel to areas away from work site before igniting/flashing back to vapor source.
Fire may cause evolution of:
Carbon oxides

Special protective equipment for firefighters	:	Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.
Further information	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Do not use a solid water stream as it may scatter and spread fire. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Evacuate personnel to safe areas. Wear personal protective equipment. Unprotected persons must be kept away. Ensure adequate ventilation. Remove all sources of ignition. Avoid breathing vapours, mist or gas. Avoid contact with skin, eyes and clothing.
Environmental precautions	:	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods and materials for containment and cleaning up	:	Ventilate the area. Do not use sparking tools. Use explosion-proof equipment. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Handling

Precautions for safe handling	:	Wear personal protective equipment. Use only in well-ventilated areas. Avoid breathing vapours, mist or gas. Avoid contact with skin, eyes and clothing.
Advice on protection against fire and explosion	:	Keep product and empty container away from heat and sources of ignition. No smoking. Take precautionary measures against static discharges. Vapours may form explosive mixtures with air.

Storage

Conditions for safe storage, including any incompatibilities	:	Store in area designed for storage of flammable liquids. Protect from physical damage. Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Methylcyclohexane Methylcyclohexane	108-87-2	TWA : Time weighted average	1,600 mg/m3 (400 ppm)	04 2007	Japan Society for Occupational Health:Japan Society for Occupational Health allowable concentration recommendation value

Appropriate engineering controls

Use with local exhaust ventilation.

Individual protection measures, such as personal protective equipment

Respiratory protection	:	In case of insufficient ventilation, wear suitable respiratory equipment.
Hand protection	:	Impervious gloves Gloves must be inspected prior to use. Replace when worn.
Eye protection	:	Safety glasses with side-shields
Skin and body protection	:	Protective suit
Hygiene measures	:	General industrial hygiene practice.
Protective measures	:	Ensure that eyewash stations and safety showers are close to the workstation location. Legal requirements are to be considered in regard of the

selection, use and care of personal protective equipment.
Avoid breathing vapours, mist or gas.
Avoid contact with skin, eyes and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid
Colour	:	colourless
Odour	:	characteristic
Melting point/range	:	-126 °C
Boiling point/boiling range	:	100 - 102 °C at 1,013 hPa
Flash point	:	25 °F (-4 °C) Method: closed cup
Lower explosion limit	:	1.1 %(V)
Upper explosion limit	:	6.7 %(V)
Vapour pressure	:	48 hPa at 20 °C(68 °F) 184 hPa at 50 °C(122 °F)
Density	:	ca. 0.769 g/cm3 at 20 °C
Water solubility	:	Note: insoluble
Partition coefficient: n-octanol/water	:	log Pow: 3.88
Ignition temperature	:	250 °C

Decomposition temperature	:	Note: No decomposition if used as directed.
Viscosity, dynamic	:	0.679 mPa.s at 20 °C
Molecular weight	:	98.19 g/mol

10. STABILITY AND REACTIVITY

Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Reacts with air to form peroxides.
Conditions to avoid	:	Protect from exposure to air/oxygen (peroxide formation). Keep away from heat and sources of ignition.
Incompatible materials to avoid	:	Oxidizing agents
Hazardous decomposition products	:	Carbon oxides

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	:	Note: Not classified due to data which are conclusive although insufficient for classification.
Acute inhalation toxicity	:	Note: Not classified due to data which are conclusive although insufficient for classification.
Acute dermal toxicity	:	LD50: > 2,000 mg/kg Species: Rabbit Method: OECD Test Guideline 402
Skin irritation	:	Note: Classification based on Annex VI of regulation 1272/2008/EC.
Eye irritation	:	Species: Rabbit Result: non-irritant Method: OECD Test Guideline 405

Sensitisation	:	Buehler Test Species: Guinea pig Result: non-sensitizing Method: OECD Test Guideline 406
Genotoxicity in vitro	:	Note: Not classified due to data which are conclusive although insufficient for classification.
Aspiration toxicity	:	May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish	:	semi-static test 2.07 mg/l Exposure time: 96 h Species: Orycias Latipes Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	semi-static test EC50: 0.326 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Method: OECD Test Guideline 202
Toxicity to algae	:	static test EC50: 0.134 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (green algae) Method: OECD Test Guideline 201
	:	static test NOEC: 0.022 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (green algae) Method: OECD Test Guideline 201
Toxicity to bacteria	:	static test NOEC: 2.725 mg/l Exposure time: 14 h Species: activated sludge

Method: OECD Test Guideline 301D

Persistence and degradability

Biodegradability	:	aerobic Result: Not rapidly biodegradable Method: OECD Test Guideline 301D

Other adverse effects

Additional ecological information	:	Do not flush into surface water or sanitary sewer system. The product should not be allowed to enter drains, water courses or the soil.

13. DISPOSAL CONSIDERATIONS

WDPCL Waste Disposal and Public Cleansing Law	:	Specially Controlled Industrial Waste
Disposal methods	:	In accordance with local and national regulations.

14. TRANSPORT INFORMATION

ADR

UN/ID No.	:	UN 2296
Description of the goods	:	METHYLCYCLOHEXANE
Class	:	3
Packing group	:	II
Classification Code	:	F1
Hazard Identification Number	:	33
Labels	:	3

IATA

UN/ID No.	:	UN 2296
Description of the goods	:	Methylcyclohexane
Class	:	3
Packing group	:	II
Labels	:	3
Packing instruction (cargo aircraft)	:	364

Packing instruction (passenger aircraft)	:	353
Packing instruction (passenger aircraft)	:	Y341

IMDG

UN/ID No.	:	UN 2296
Description of the goods	:	METHYLCYCLOHEXANE
Class	:	3
Packing group	:	II
Labels	:	3
EmS Number 1	:	F-E
EmS Number 2	:	S-D
Marine pollutant	:	yes

15. REGULATORY INFORMATION

National regulatory information

Vessel Safety Law JP VSL	:	Flammable liquids (Article 2 and 3 of rules on shipping and storage of dangerous goods and its Attached Table 1)
Aviation Law JP AVL	:	Flammable liquids (Article 194 of The Enforcement Rules of Aviation Law and its Attached Table 1)
Fire Service Law JP FSL DS4	:	Type 1 petroleums Flammable liquids II
Chemical Substance Control Law JP MON3	:	Listed Type III Monitoring Chemical Substance. Reference: (3)-2230
Substances Subject to be Notified Names JP MSDSD	:	Threshold Concentration: 1 % wt 576
Substances Subject to be Indicated Names JPISHL LR	:	Article 18 Threshold limits: 1 % wt 576

Other international regulations

Notification status

US. Toxic Substances Control Act	:	On TSCA Inventory
Australia. Industrial Chemical (Notification and Assessment) Act	:	On the inventory, or in compliance with the inventory
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	:	All components of this product are on the Canadian DSL
Japan. Kashin-Hou Law List	:	On the inventory, or in compliance with the inventory
Korea. Toxic Chemical Control Law (TCCL) List	:	On the inventory, or in compliance with the inventory
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	:	On the inventory, or in compliance with the inventory
China. Inventory of Existing Chemical Substances	:	On the inventory, or in compliance with the inventory
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	:	On the inventory, or in compliance with the inventory

16. OTHER INFORMATION

		HMIS III	NFPA
Health hazard	:	2	1
Flammability	:	3	3
Physical Hazard	:	0	
Instability	:		0

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

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. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.
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