

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**
**Product Identifier**

Perihalan Produk:

(TRIMETILSILIL) DIAZOMETANA

Product Description:

(Trimethylsilyl) diazomethane, 1.8 to 2.4M solution in hexanes

Cat No. :

385330000, 385330050, 385330250, 385331000; 385335000

**Relevant identified uses of the substance or mixture and uses advised against**

Recommended Use

Laboratory chemicals.

Uses advised against

No Information available

**Details of the supplier of the safety data sheet**
**Company**

 Fisher Scientific (M) Sdn Bhd No. 3, Jalan Sepadu 25/123,  
 Taman Perindustrian Axis, Seksyen 25,  
 40400 Shah Alam, Selangor Darul Ehsan, Malaysia.  
 Tel: +03-5525 7888  
 Fax: +603 51257978.

E-mail address

Enquiry.my@thermofisher.com

**Emergency Telephone Number**

Tel: +03-5525 7888

CHEMTREC Malaysia 1-800-815-308 (Malay)

CHEMTREC Malaysia (Kuala Lumpur) +(60)-327884561 (Malay)

**SECTION 2: HAZARDS IDENTIFICATION**
**Classification of the substance or mixture**

Flammable liquids	Category 2 (H225)
Aspiration Toxicity	Category 1 (H304)
Acute Inhalation Toxicity - Vapors	Category 2 (H330)
Skin Corrosion/Irritation	Category 2 (H315)
Carcinogenicity	Category 1B (H350)
Reproductive Toxicity	Category 2 (H361f)
Specific target organ toxicity - (single exposure)	Category 1 (H370)
	Category 3 (H336)
Specific target organ toxicity - (repeated exposure)	Category 2 (H373)
Chronic aquatic toxicity	Category 2 (H411)

**Label Elements**


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## Signal Word

**Danger**

## Hazard Statements

H225 - Highly flammable liquid and vapor  
H304 - May be fatal if swallowed and enters airways  
H330 - Fatal if inhaled  
H315 - Causes skin irritation  
H370 - Causes damage to organs  
H336 - May cause drowsiness or dizziness  
H350 - May cause cancer  
H361f - Suspected of damaging fertility  
H373 - May cause damage to organs through prolonged or repeated exposure  
H411 - Toxic to aquatic life with long lasting effects

## Precautionary Statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower  
P331 - Do NOT induce vomiting  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P310 - Immediately call a POISON CENTER or doctor/physician  
P280 - Wear protective gloves/protective clothing/eye protection/face protection

## Other Hazards

This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
(Trimethylsilyl)diazomethane	18107-18-1	33
Hexane, branched and linear	92112-69-1	67

## SECTION 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.

#### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

#### Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

#### Ingestion

Do NOT induce vomiting. Call a physician or poison control center immediately. If vomiting occurs naturally, have victim lean forward.

#### Inhalation

Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. Risk of serious damage to the lungs (by aspiration).

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**Self-Protection of the First Aider** Use personal protective equipment as required.

**Most important symptoms and effects, both acute and delayed**

None reasonably foreseeable. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

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

**Notes to Physician** Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

**Extinguishing media**

**Suitable Extinguishing Media**

Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

**Extinguishing media which must not be used for safety reasons**

No information available.

**Special hazards arising from the substance or mixture**

Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. Extremely flammable.

**Hazardous Combustion Products**

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>), Silicon dioxide.

**Advice 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**

Use personal protective equipment as required. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges.

**Environmental precautions**

Do not flush into surface water or sanitary sewer system.

**Methods and Material for Containment and Cleaning Up**

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

**Reference to Other Sections**

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

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## Precautions for Safe Handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

## Conditions for Safe Storage, Including any Incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. To maintain product quality: Keep refrigerated.

## Specific End Uses

Use in laboratories.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Component	Malaysia	ACGIH TLV	OSHA PEL
Hexane, branched and linear			(Vacated) TWA: 500 ppm (Vacated) TWA: 1800 mg/m <sup>3</sup> (Vacated) STEL: 1000 ppm (Vacated) STEL: 3600 mg/m <sup>3</sup>

Component	European Union	The United Kingdom	Germany
Hexane, branched and linear			TWA: 500 ppm (8 Stunden). AGW - exposure factor 2 TWA: 1800 mg/m <sup>3</sup> (8 Stunden). AGW - exposure factor 2 Höhepunkt: 1000 ppm Höhepunkt: 3600 mg/m <sup>3</sup>

### Exposure Controls

#### Engineering Measures

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment. Ensure adequate ventilation, especially in confined areas.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

### Personal protective equipment

<b>Eye Protection</b>	Tight sealing safety goggles
<b>Hand Protection</b>	Protective gloves
<b>Skin and body protection</b>	Long sleeved clothing

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 compatibility, 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.

#### Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

#### Recommended Filter type:

Organic gases and vapours filter Type A Brown conforming to EN14387

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

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When RPE is used a face piece Fit Test should be conducted

## Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

## Environmental exposure controls

Prevent product from entering drains Do not allow material to contaminate ground water system

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Appearance	Clear Yellow	
Physical State	Liquid	
Odor	mild	
Odor Threshold	No data available	
pH	No information available	
Melting Point/Range	No data available	
Softening Point	No data available	
Boiling Point/Range	96 °C / 204.8 °F	@ 760 mmHg
Flash Point	-23 °C / -9.4 °F	<b>Method -</b> No information available
Evaporation Rate	No data available	
Flammability (solid,gas)	Not applicable	Liquid
Explosion Limits	No data available	
Vapor Pressure	No data available	
Vapor Density	No data available	(Air = 1.0)
Specific Gravity / Density	0.718	
Bulk Density	Not applicable	Liquid
Water Solubility	Insoluble	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	<b>log Pow</b>	
Hexane, branched and linear	4.11	
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
Viscosity	No data available	
Explosive Properties		Vapors may form explosive mixtures with air
Oxidizing Properties	No information available	

## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

None known, based on information available.

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## Chemical Stability

Stable under normal conditions.

## Possibility of Hazardous Reactions

### **Hazardous Polymerization Hazardous Reactions**

Hazardous polymerization does not occur.  
None under normal processing.

## Conditions to Avoid

Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition.

## Incompatible Materials

Strong oxidizing agents.

## Hazardous Decomposition Products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>). Silicon dioxide.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

#### **Product Information**

##### **(a) acute toxicity;**

**Oral**

Based on available data, the classification criteria are not met

**Dermal**

Based on available data, the classification criteria are not met

**Inhalation**

Category 2

### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hexane, branched and linear	LD50 = 15000 mg/kg ( Rat )	LD50 = 3350 mg/kg (Rabbit)	LC50 = 259354 mg/m <sup>3</sup> (Rat) 4h

##### **(b) skin corrosion/irritation;**

Category 2

##### **(c) serious eye damage/irritation;**

No data available

##### **(d) respiratory or skin sensitization;**

**Respiratory**

No data available

**Skin**

No data available

##### **(e) germ cell mutagenicity;**

No data available

##### **(f) carcinogenicity;**

Category 1B

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(g) reproductive toxicity; Reproductive Effects	Category 2 Experiments have shown reproductive toxicity effects on laboratory animals.
(h) STOT-single exposure; Results / Target organs	Category 3 Central nervous system (CNS).
(i) STOT-repeated exposure; Target Organs	Category 2 Peripheral Nervous System (PNS), Central nervous system (CNS), Eyes, Respiratory system, Skin, Liver, Blood.
(j) aspiration hazard; Other Adverse Effects	Category 1 The toxicological properties have not been fully investigated.
Symptoms / effects, both acute and delayed	Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Endocrine Disrupting Properties	Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

<u>Ecotoxicity effects</u>	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.	
<u>Persistence and degradability</u>		
Persistence	Insoluble in water, Persistence is unlikely, based on information available.	
Degradation in sewage treatment plant	Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.	
<u>Bioaccumulative potential</u>	May have some potential to bioaccumulate	
Component	log Pow	Bioconcentration factor (BCF)
Hexane, branched and linear	4.11	No data available
<u>Mobility in soil</u>	Spillage unlikely to penetrate soil. The product is insoluble and floats on water. The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. . Is not likely mobile in the environment due its low water solubility. Will likely be mobile in the environment due to its volatility.	
<u>Endocrine Disruptor Information</u>	This product does not contain any known or suspected endocrine disruptors	
<u>Other adverse effects</u>	No information available	

## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment methods

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<b>Waste from Residues/Unused Products</b>	Waste is classified as hazardous Dispose of in accordance with the European Directives on waste and hazardous waste Dispose of in accordance with local regulations
<b>Contaminated Packaging</b>	Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous Keep product and empty container away from heat and sources of ignition
<b>Other Information</b>	Do not flush to sewer Waste codes should be assigned by the user based on the application for which the product was used Can be landfilled or incinerated, when in compliance with local regulations Do not let this chemical enter the environment Do not empty into drains

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

<b>UN-No</b>	UN1992
<b>Hazard Class</b>	3
<b>Subsidiary Hazard Class</b>	6.1
<b>Packing Group</b>	II
<b>Proper Shipping Name</b>	Flammable liquid, toxic, n.o.s. (HEXANE, (TRIMETHYLSILYL)DIAZOMETHANE)

### Road and Rail Transport

<b>UN-No</b>	UN1992
<b>Hazard Class</b>	3
<b>Subsidiary Hazard Class</b>	6.1
<b>Packing Group</b>	II
<b>Proper Shipping Name</b>	Flammable liquid, toxic, n.o.s. (HEXANE, (TRIMETHYLSILYL)DIAZOMETHANE)

### IATA

<b>UN-No</b>	UN1992
<b>Hazard Class</b>	3
<b>Subsidiary Hazard Class</b>	6.1
<b>Packing Group</b>	II
<b>Proper Shipping Name</b>	Flammable liquid, toxic, n.o.s. (HEXANE, (TRIMETHYLSILYL)DIAZOMETHANE)

**Special Precautions for User** No special precautions required

## SECTION 15: REGULATORY INFORMATION

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

**International Inventories** X = listed

Component	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	IECSC	AICS	KECL
Hexane, branched and linear	295-570-2	-	-	-	X	X	-	X	-

### National Regulations

**Persistent Organic Pollutant** This product does not contain any known or suspected substance  
**Ozone Depletion Potential** This product does not contain any known or suspected substance



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## SECTION 16: OTHER INFORMATION

### Legend

**CAS** - Chemical Abstracts Service

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

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

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

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

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**POW** - Partition coefficient Octanol:Water

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

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

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

### **Key literature references and sources for data**

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

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

**Revision Date**

31-Aug-2023

**Revision Summary**

SDS sections updated, 1, 2, 3, 7, 9.

**In accordance with local and national regulations: Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013**

### **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

**End of Safety Data Sheet**