

## ADDENDUM TO SAFETY DATA SHEET (SDS)

This SDS is delivered in an internationally recognised GHS format. This addendum provides information specifically for this product according to the Australian *Model Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals*. This addendum should not be detached but rather read in conjunction with the SDS which follows. It remains integral to the attached SDS.

IDENTIFICATION				
Product Name	1-Hexene			
Manufacturer	Tokyo Chemical Industry Co. Ltd.			
Product Code/s	H0121			
SDS Revision No:	1	Date of Issue:	16/10/2018	Page 00 of 05

SUPPLIER CONTACT DETAILS			
Company	Chem-Supply Pty Ltd		
Australian Address	38 – 50 Bedford Street, Gillman SA 5013		
Telephone	(08) 8440 2000	Fax	(08) 8440 2001
Emergency - Australia	(08) 8440 2000 (8:30 am to 5:00 pm Monday to Friday)		

MODEL WORK HEALTH AND SAFETY REGULATIONS	
GHS Hazard Class and Category	Flammable liquids, Category 2; Specific target organ toxicity – Single exposure, respiratory tract irritation, Narcotic effects, Category 3; Aspiration hazard, Category 1; Acute aquatic hazard, Category 2.
Signal Word	DANGER
Hazard Statements	H225, H335, H336, H304.
Precautionary Statements	See section 2, page 2.
Australian Exposure Standard/s	None known

AUSTRALIAN DANGEROUS GOODS CODE INFORMATION			
UN Number	2370	DG Class	3
Packing Group	II	Sub. Risk/s	-
Proper Shipping Name	1-Hexene		
Hazchem Code	3YE		

ADDITIONAL REGULATORY INFORMATION	
Poisons Schedule (SUSMP)	Not scheduled
AICS	All ingredients are listed on the Australian Inventory of Chemical Substances



TOKYO CHEMICAL INDUSTRY CO., LTD.

1-Hexene

Revision 1  
number:

Revision date: 10/16/2018

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Revision date: 10/16/2018

## SAFETY DATA SHEET

### 1. IDENTIFICATION

**Product name:** 1-Hexene  
**Product code:** H0121  
**Company:** TOKYO CHEMICAL INDUSTRY CO., LTD.  
**Address:** 4-10-2, Nihonbashi-honcho, Chuo-ku, Tokyo 103-0023, Japan  
**Responsible department:** Global Business Department  
**Telephone:** +81-3-5640-8872  
**Fax:** +81-3-5640-8902  
**e-mail:** globalbusiness@TCIchemicals.com  
**Revision number:** 1

### 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

**PHYSICAL HAZARDS**

Flammable liquids

Category 2

**HEALTH HAZARDS**

Specific target organ toxicity

Respiratory tract irritation, Narcotic effects

- Single exposure [Category 3]

Aspiration hazard

Category 1

**ENVIRONMENTAL HAZARDS**

Acute aquatic hazard

Category 2

**Label elements**

**Pictograms or hazard symbols**



**Signal word**

Danger

**Hazard statements**

Highly flammable liquid and vapour  
May cause respiratory irritation  
May cause drowsiness or dizziness  
May be fatal if swallowed and enters airways  
Toxic to aquatic life

**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 and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.  
Avoid breathing mist, vapors or spray.  
Use only outdoors or in a well-ventilated area.  
Avoid release to the environment.

**[Response]**

Wear protective gloves, eye protection.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

**[Storage]**

In case of fire: Use dry chemical, dry sand or foam to extinguish.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.

**[Disposal]**

Dispose of contents and container in accordance with local, regional, national

regulations.  
**Other hazards which do not result in classification** May form explosive peroxides.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/mixture:** Substance  
**Components:** 1-Hexene  
**Percent:** >97.0%(GC)  
**CAS RN:** 592-41-6  
**Chemical Formula:** C<sub>6</sub>H<sub>12</sub>  
**Notice Through Official Gazettes Reference Number**  
**ENCS:** (2)-22, (2)-31  
**ISHL:** Official announcement chemistry substance.

### 4. FIRST-AID MEASURES

**Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.  
**Skin contact:** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.  
**Eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.  
**Ingestion:** Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.  
**Protection of first-aiders:** A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Dry chemical, foam, carbon dioxide.  
**Unsuitable extinguishing media:** Water (It may scatter and spread fire.)  
**Precautions for firefighters:** Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Keep containers cool by spraying with water. Eliminate all ignition sources if safe to do so.  
**Special protective equipment for firefighters:** When extinguishing fire, be sure to wear personal protective equipment

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.  
**Environmental precautions:** Prevent product from entering drains.  
**Methods and materials for containment and cleaning up:** Absorb spilled material in dry sand or inert absorbent before recovering it into an airtight container. In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.  
**Prevention of secondary hazards:** Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Technical measures:** Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Keep away from heat/sparks/open flame/hot surfaces. -No smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling.  
Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated.

**Advice on safe handling:** Avoid contact with skin, eyes and clothing.  
Confirm in advance if peroxides exist when operations involving heating such as distillation are carried out.

### Conditions for safe storage, including any incompatibilities

**Storage conditions:** Keep container tightly closed. Store in a cool, dark and well-ventilated place.  
Store locked up.  
Store away from incompatible materials such as oxidizing agents.

**Packaging material:** Comply with laws.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering controls:** Install a closed system or local exhaust. Also install safety shower and eye bath.

**Control parameters:** Not set up

### **Exposure limits:**

**ACGIH TLV(TWA):** 50 ppm

### **Personal protective equipment**

**Respiratory protection:** Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.

**Hand protection:** Impervious gloves.

**Eye protection:** Safety goggles. A face-shield, if the situation requires.

**Skin and body protection:** Impervious protective clothing. Protective boots, if the situation requires.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state (20°C):** Liquid

**Form:** Clear

**Colour:** Colorless - Very pale yellow

**Odour:** Characteristic

**pH:** No data available

**Melting point/freezing point:** -140°C

**Boiling point/range:** 64°C

**Flash point:** -31°C

**Flammability or explosive limits:**

**Lower:** 1.2%

**Upper:** 6.9%

**Vapour pressure:** 41kPa/38°C

**Vapour density:** 2.9

**Relative density:** 0.67

**Solubility(ies):**

**[Water]** Insoluble (50mg/L, 25°C)

**[Other solvents]**

**Very soluble:** Ether, Benzene, Ethanol, Petroleum ether

**Log Pow:** 3.39

**Autoignition temperature:** 253°C

## 10. STABILITY AND REACTIVITY

**Reactivity:** No data available

**Chemical stability:** May form explosive peroxides.

**Possibility of hazardous reactions:** No special reactivity has been reported.

**Conditions to avoid:** Spark, Open flame, Static discharge, Air

**Incompatible materials:** Oxidizing agents, Acids

**Hazardous decomposition products:** Carbon dioxide, Carbon monoxide

**11. TOXICOLOGICAL INFORMATION**

<b>Acute Toxicity:</b>	ihl-rat LC50:32000 ppm/4H orl-rat LD:>10 g/kg skn-rbt LD:>10 g/kg
<b>Skin corrosion/irritation:</b>	No data available
<b>Serious eye damage/irritation:</b>	No data available
<b>Germ cell mutagenicity:</b>	No data available
<b>Carcinogenicity:</b>	
<b>IARC =</b>	No data available
<b>NTP =</b>	No data available
<b>Reproductive toxicity:</b>	No data available
<b>RTECS Number:</b>	MP6670000

**12. ECOLOGICAL INFORMATION**

<b>Ecotoxicity:</b>	
<b>Fish:</b>	No data available
<b>Crustacea:</b>	No data available
<b>Algae:</b>	No data available
<b>Persistence / degradability:</b>	83% (by BOD) , 93% (by TOC) , 88% (by GC) *The substance was determined as "Ready biodegradability" under the Chemical Substances Control Law.
<b>Bioaccumulative potential(BCF):</b>	No data available
<b>Mobility in soil</b>	
<b>Log Pow:</b>	3.39
<b>Soil adsorption (Koc):</b>	1660
<b>Henry's Law (PaM<sup>3</sup>/mol):</b>	415330
<b>Other adverse effects:</b>	No data available

**13. DISPOSAL CONSIDERATIONS**

Recycle to process, if possible. Consult your local regional authorities. You may be able to burn in a chemical incinerator equipped with an afterburner and scrubber system but exert extra care in igniting as this material is highly flammable. Observe all federal, state and local regulations when disposing of the substance

**14. TRANSPORT INFORMATION**

<b>Hazards Class:</b>	3: Flammable liquid.
<b>UN-No:</b>	2370
<b>Proper shipping name:</b>	1-Hexene
<b>Packing group:</b>	II
<b>Specific precautionary transport measures and conditions:</b>	

**15. JAPANESE REGULATORY INFORMATION**

<b>Fire Defense Law:</b>	Class-4 No.1 petroleums Dangerous grade 2 Not water-soluble fluid
<b>ISHL(Article 57):</b>	Dangerous or Harmful Substances Subject to Be Indicated their Names, etc.
<b>ISHL(Article 57-2):</b>	Dangerous or Harmful Substances Subject to Be Notified their Names, etc.
<b>ISHL(Enforcement Order of the Industrial Safety and Health Act Appended Table 1):</b>	Inflammable Substances
<b>Law for safety of vessels:</b>	Hazardous materials notification, Schedule form No.1 Flammable liquid

**16. OTHER INFORMATION****The reference company name of written contents**

**Company:** TOKYO CHEMICAL INDUSTRY CO., LTD.  
**Address:** 4-10-2, Nihonbashi-honcho, Chuo-ku, Tokyo 103-0023, Japan  
**Department:** Global Business Department  
**Telephone:** +81-3-5640-8872  
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This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.