TOKYO CHEMICAL INDUSTRY CO., LTD.

Revision date: 03/05/2023

SAFETY DATA SHEET

1. IDENTIFICATION

Product name: 1-Pentene
Product code: P0316
Company: TOKYO CHEMICAL INDUSTRY CO., LTD.
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Revision number: 3

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

PHYSICAL HAZARDS
Flammable liquids Category 1
HEALTH HAZARDS
Aspiration hazard Category 1
ENVIRONMENTAL HAZARDS Not classified

Label elements

Pictograms or hazard symbols

Signal word Danger
Hazard statements Extremely flammable liquid and vapour
May be fatal if swallowed and enters airways

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.
Wear protective gloves, eye protection.

[Response] 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.

[Storage] Store in a well-ventilated place. Keep cool.
Store locked up.

[Disposal] Dispose of contents and container in accordance with local, regional, national regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Substance
Components: 1-Pentene
Percent: >98.0%(GC)
CAS RN: 109-67-1
Synonyms: 1-Amylene
Chemical Formula: C_5H_{10}

Notice Through Official Gazettes Reference Number

ENCS: (2)-19
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. Get medical advice/attention 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.

Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed. Store in an explosion-proof refrigerator.
Store under inert gas.
Store locked up.
Store away from incompatible materials such as oxidizing agents.
Heat-sensitive, Air-sensitive

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

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 - Almost colorless
Odour:	No data available
Melting point/freezing point:	No data available
Boiling point/range:	30°C
Flammability(solid, gas):	No data available
Flash point:	No data available
Autoignition temperature:	273°C
Flammability or explosive limits:	
Lower:	1.6%
Upper:	8.7%
pH:	No data available
Kinematic viscosity:	No data available
Vapour pressure:	84.7kPa/25°C
Solubility(ies):	
[Water]	Insoluble (148mg/L, 25°C)
[Other solvents]	
Miscible:	Ether, Alcohols, Benzene
Log Pow:	2.66
Relative density:	0.64
Vapour density:	2.42
Particle characteristics:	No data available

10. STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical stability:	Stable under proper conditions.
Possibility of hazardous reactions:	No special reactivity has been reported.
Conditions to avoid:	Spark, Open flame, Static discharge
Incompatible materials:	Oxidizing agents
Hazardous decomposition products:	Carbon dioxide, Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:	ihl-mus LC50:180000 mg/m^3/2H ihl-rat LC50:175000 mg/m^3/4H
Skin corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	
IARC =	No data available
NTP =	No data available
Reproductive toxicity:	No data available
STOT-single exposure:	No data available
STOT-repeated exposure:	No data available
Aspiration hazard:	No data available
RTECS Number:	SB2179000

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Fish:	No data available
Crustacea:	No data available
Algae:	No data available
Persistence / degradability:	No data available
Bioaccumulative potential(BCF):	22
Mobility in soil	
Log Pow:	2.66
Soil adsorption (Koc):	81
Henry's Law (PaM ^{3}/mol):	4 x 10^{-4}
Other adverse effects:	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

UN-No:	1108
Proper shipping name:	1-Pentene
Hazards Class:	3: Flammable liquid.
Packing group:	I
Specific precautionary transport measures and conditions:	

15. JAPANESE REGULATORY INFORMATION

Fire Defense Law:	Class-4 Special flammable substance Dangerous grade 1
ISHL(Enforcement Order of the Industrial Safety and Health Act Appended Table 1):	Inflammable Substances
Law for safety of vessels:	Hazardous materials notification, Schedule form No.1 Flammable liquid

16. OTHER INFORMATION

The reference company name of written contents

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