

1-Hexene

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

Trade name	1-Hexene	
Synonyms	Hexene-1, Alpha-hexene, Hexylene, Hex-1-ene	
Use	Industrial use, Raw material for chemical processes, Raw material for industry	
Company	Sasol Chemicals (USA) LLC (an affiliate of Sasol Chemicals North America LLC)	
Address	12120 Wickchester Lane Houston TX 77079	
Telephone	CHEMTREC North America Transportation Emergency (24-hr)	(800) 424-9300
	CHEMTREC World Wide	(703) 527-3887
	Other Emergencies (24-hr)	(337) 494-5142
	SDS and Product Information (8:00am-4:30pm CST)	(281) 588-3491
	Health and Safety Information (7:30am-4:00pm CST)	(281) 588-3492
E-mail address	SasolElectronicSDS@us.sasol.com	

SECTION 2 HAZARDS IDENTIFICATION

OSHA/GHS	Flammable liquids	Category 2
Hazards	Aspiration hazard	Category 1

LABEL ELEMENTS

Hazard symbols



Signal word Danger

Hazard statements H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.

Precautionary statements

Prevention P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.

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P243 Take precautionary measures against static discharge.
 P280 Wear protective gloves/ eye protection/ face protection.

Response P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.
 P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
 P331 Do NOT induce vomiting.

Storage P403 + P405 + P235 Store locked up in a well-ventilated place. Keep cool.

Disposal P501 Dispose of contents/ container to an approved waste disposal plant.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS-No.</u>	<u>Weight percent</u>
1-Hexene	592-41-6	100

See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.

SECTION 4 FIRST AID MEASURES

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Inhalation Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of shortness of breath, give oxygen. Call a physician immediately.

Ingestion If swallowed, call a poison control centre or doctor immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

SECTION 5 FIREFIGHTING MEASURES

FLAMMABLE PROPERTIES

Fire/explosion Explosion risk in case of fire. Catches fire spontaneously if exposed to air. Flash back possible over considerable distance. Vapours may form explosive mixture with air. NFPA Class 1B flammable liquid.

Suitable extinguishing media Alcohol-resistant foam, Carbon dioxide (CO₂), Dry chemical

Protective equipment Wear self-contained breathing apparatus and protective suit.

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and precautions for firefighters

Further information Keep containers and surroundings cool with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Do not use a solid water stream as it may scatter and spread fire.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up Evacuate personnel to safe areas. Remove all sources of ignition. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7 HANDLING AND STORAGE

Safe handling advice Ensure all equipment is electrically grounded before beginning transfer operations.

Storage/Transport pressure Ambient

Load/Unload temperature Ambient

Further information on storage conditions Keep away from heat and sources of ignition.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES

Provide adequate explosion-proof, general or exhaust ventilation. Ventilate low-lying areas such as sumps and confined spaces.

PERSONAL PROTECTIVE EQUIPMENT

Eyes Chemical resistant goggles must be worn. Wear as appropriate: Face-shield

Skin Wear suitable protective clothing, gloves and eye/face protection.

Inhalation Respiratory protection is normally not required except in emergencies or when conditions cause excessive airborne levels of mists or vapors. Use NIOSH approved respiratory protection.

EXPOSURE GUIDELINES

<u>Components</u>	<u>Exposure limit(s)</u>
1-Hexene	ACGIH TLV (8-hour) 50 ppm

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PEL= Permissible Exposure Limits
TLV= Threshold Limit Value
EL= Excursion Limit

TWA= Time Weighted Average (8 hr.)
STEL= Short Term Exposure Limit (15 min.)
WEEL= Workplace Environmental Exposure Level

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid;
Colour	Clear, colorless
Form	liquid
Odour	Hydrocarbons
Odour Threshold	No data available
Flash point	-26 °C, -15 °F;
Flammability	Upper explosion limit: approximately 7 %(V) Lower explosion limit: approximately 1.2 %(V)
Boiling point/boiling range	63 °C, 145 °F;
Melting point/range	-140 °C, -220 °F;
Auto-ignition temperature	265 °C, 509 °F;
Decomposition temperature	No data available
Flammability (solid, gas)	No data available
Vapour pressure	approximately 41.3 kPa @ 20 °C, 68 °F;
Vapour density	2.9
Density	0.67 g/cm ³ @ 20 °C, 68 °F;
Specific gravity	No data available
Water solubility	insoluble
Viscosity	0.356 cSt
pH	No data available

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Evaporation rate No data available

Partition coefficient: n-octanol/water No data available

SECTION 10 STABILITY AND REACTIVITY

Reactivity Stable at normal ambient temperature and pressure.

Chemical stability No decomposition if stored and applied as directed.

Conditions to avoid Keep away from heat and sources of ignition.

Hazardous decomposition products Carbon dioxide (CO₂)

Materials to avoid Oxidizing agents
Acids

Hazardous polymerisation None.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute dermal toxicity LD₅₀ Rabbit: > 2,000 mg/kg
Test substance: Hexene-1

Acute inhalation toxicity LC₅₀ Rat (4 hours): 110.2 mg/l
Test substance: Hexene-1

Acute oral toxicity LD₅₀ Rat: > 5,600 mg/kg
Test substance: Hexene-1

Skin corrosion/irritation Primary irritation (Rabbit): 0 (Max. score is 8.0.)
Test substance: Hexene-1
Not irritating

Serious eye damage/eye irritation Primary irritation (Rabbit): 4 (Max. score is 110.)
Test substance: Hexene-1
slight irritation

Respiratory or skin sensitisation Guinea pig: not sensitizing; OECD Test Guideline 406

Germ cell mutagenicity **Genotoxicity in vitro:**
No data available

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Genotoxicity in vivo:

No data available

Assessment Mutagenicity:

No data available

Reproductive toxicity **Reproductive toxicity:**

No data available

Assessment Reproductive toxicity:

No data available

Teratogenicity:

No data available

Assessment teratogenicity:

No data available

STOT - single exposure No data available

STOT - repeated exposure Rat; 28-day;
 NOAEL: 101 mg/kg
 Test substance: Hexene-1; Indications of toxicity included clinical signs, decreased body weight, changes in clinical chemistry, and reduced spleen weight, and stomach irritation in males.
 Based on available data, the classification criteria are not met.

Aspiration toxicity May be fatal if swallowed and enters airways.

Carcinogenicity **Assessment carcinogenicity:**
 Contains no ingredient listed as a carcinogen

SECTION 12 ECOLOGICAL INFORMATION

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)) 96 hours: 5.6 mg/l**Toxicity to aquatic invertebrates** EC50 (Daphnia magna (Water flea)) 48 hours: 4.4 mg/l**Toxicity to algae** ErC50 (Pseudokirchneriella subcapitata (green algae)) 96 hours: > 5.5 mg/l**Chronic toxicity to fish** No data available**Chronic toxicity to aquatic invertebrates** No data available

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Biodegradation Readily biodegradable.
OECD Test Guideline 301C (28 d): > 60 %

Bioaccumulative potential No data available

Mobility in soil No data available

Other adverse effects No data available

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Code D001 - Ignitability (RQ 100 LB). This product has the RCRA characteristic of ignitability. Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification.

Disposal methods Dispose of only in accordance with local, state, and federal regulations. Land disposal of this product is restricted. Do not contaminate any lakes, streams, ponds, groundwater or soil.

Empty containers. Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

SECTION 14 TRANSPORT INFORMATION

DOT UN 2370, 1-Hexene, 3, II

IATA UN 2370, 1-Hexene, 3, II

IMDG UN 2370, 1-Hexene, 3, II

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks No data available

SECTION 15 REGULATORY INFORMATION

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U.S. FEDERAL REGULATIONS

TSCA Inventory Listing

Components

1-Hexene

CAS-No.

592-41-6

SARA 302 Status

Components

CAS-No.

Weight percent

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Classification

"Fire hazard", "Immediate (acute) health hazard"

SARA 313 Chemical

Components

CAS-No.

Weight percent

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Components

none

Reportable Quantity

Weight percent

INTERNATIONAL REGULATIONS

WHMIS Classification

Flammable liquids

Category 2

Aspiration hazard

Category 1

European Union

Classification according to Regulation (EU) 1272/2008.

Flammable liquids, Category 2

Aspiration hazard, Category 1

Repeated exposure may cause skin dryness or cracking.

Australia. Inventory of Chemical Substances (AICS)

Listed

Japan. Inventory of Existing and New Chemical Substances (ENCS)

Listed

Japan. ISHL - Inventory of Chemical Substances

Listed

Canada. Domestic Substances List (DSL) Inventory

Listed

Canada. Non-Domestic Substance Listing (NDSL)

Not listed

Philippines. Inventory of Chemicals / Chemical Substances (PICCS)

Listed

Korea. Existing Chemicals Inventory (KECI)

Listed

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China. Inventory of Existing Chemical Substances (IECSC)	Listed
Mexico	Listed
New Zealand. Inventory of Chemical Substances	Listed
Switzerland	Listed
Taiwan. National Existing Chemical Inventory (NECI)	Listed

Please note: The names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in Section 3.

STATE REGULATIONS

California Prop. 65
Components
 none

CAS-No.

SECTION 16 OTHER INFORMATION

HAZARD RATINGS

	<u>Health</u>	<u>Flammability</u>	<u>Physical Hazard/ Instability</u>
HMIS®	1	3	0
NFPA	1	3	0

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