

Revision number: 2 Revision date: 10/06/2014

# 1. IDENTIFICATION

#### Product name: Product code:

1-Hexyne H0140

#### Product use: Restrictions on use:

### Company:

CI America 9211 N. Harborgate Street Portland, OR 97203 U.S.A. Telephone: +1-800-423-8616 / +1-503-283-1681 Fax: +1-888-520-1075 / +1-503-283-1987 e-mail: sales-US@TCIchemicals.com www.TCIchemicals.com

### 2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200:

Skin Corrosion/Irritation [Category 2] Eye Damage/Irritation [Category 2A] Aspiration Hazard [Category 1] Flammable Liquids [Category 2]

Signal word:

Hazard Statement(s):

Danger!

Causes serious eye irritation Causes skin irritation Highly flammable liquid and vapor May be fatal if swallowed and enters airways

### Pictogram(s) or Symbol(s):



Precautionary Statement(s): [Prevention]

[Response]

[Storage] [Disposal] Wash hands and face thoroughly after handling. Wear protective gloves. Wear eye and face protection. Keep away from heat, sparks, open flames or other hot surfaces. - No smoking. Keep container tightly closed. Ground or bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting, and equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves, eye protection and face protection.

If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If in eyes: 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 or attention. 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. In case of fire: Use dry chemical, CO2, water spray or alcohol-resistant foam to extinguish. Store locked up. Store in a well-ventilated place. Keep cool.

Dispose of contents and container in accordance with US EPA guidelines for the classification and determination of hazardous waste listed in 40 CFR 261.3. (See Section 13)

### For laboratory research purposes. Not for drug or household use.

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SAFETY DATA SHEET

Emergency telephone number:

TCI America (8:00am - 5:00pm) PST

Chemical Emergencies:

Transportation Emergencies:

+1-703-527-3887 (International) Responsible department:

Environmental Health Safety and Security

+1-503-286-7624

Chemtrec 24-Hour +1-800-424-9300 (U.S.A.)

**TCI** America

+1-503-286-7624

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# 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Components: Percent:	Substance 1-Hexyne >97.0%(GC)	
CAS Number:	693-02-7	
Molecular Weight:	82.15	
Chemical Formula:	C <sub>6</sub> H <sub>10</sub>	

### 4. FIRST-AID MEASURES

Inhalation:	Immediately call a poison center or doctor. Effects of exposure (inhalation) to substance may be delayed. Inhalation of vapors or contact with substance will result in contamination and potential harmful effects. Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Skin contact:	For severe burns, immediate medical attention is required. Immediately call a poison center or doctor. Remove and wash contaminated clothing before re-use. Remove and isolate contaminated clothing and shoes. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Eye contact:	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Contact with material may irritate or burn eyes. Call emergency medical service. Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Ingestion:	Do not induce vomiting with out medical advice. Call a physician or Poison Control Center immediately. Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Symptoms/effects:	
Acute: Delayed:	Cough. Redness. No data available
Immediate medical attention:	If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
5. FIRE-FIGHTING MEASURES	
Suitable extinguishing media:	Dry chemical, CO <sub>2</sub> , water spray, or alcohol-resistant foam. Consult with local fire authorities before attempting large scale fire fighting operations.
Specific hazards arising from the chemic Hazardous combustion products: Other specific hazards:	al These products include: Carbon oxides Closed containers may explode from heat of a fire.

### Special precautions for fire-fighters:

Use water spray or fog; do not use straight streams. Dike fire-control water for later disposal; do not scatter the material. CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient. Do not use straight streams. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Move containers from fire area if you can do it without risk. **Special protective equipment for fire-fighters:** 

Wear positive pressure self-contained breathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions:

Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Use sparkproof tools and explosion-proof equipment. Remove all sources of ignition. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (Section 8). Warn unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6. ACCIDENTAL RELEASE MEASU	JRES
Personal protective equipment:	Wear eye protection (splash goggles) and face protection (full length face shield). Lab coat. Vapor respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile).
Emergency procedures:	Isolate area until gas has dispersed. Do not clean-up or dispose except under supervision of a specialist. In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the area, and excercise caution. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements or confined areas; dike if needed.

#### Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). All equipment used when handling the product must be grounded. Stop leak if without risk. Ventilate the area. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material.

**Environmental precautions:** 

Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed.

7. HANDLING AND STORAGE	
Precautions for safe handling:	Do NOT breath gas, fumes, vapor, or spray. Avoid contact with skin and eyes. Do not ingest. Keep away from heat and sources of ignition. Use explosion-proof equipment. Use only non-sparking hand tool when handling this product. Ground all equipment containing material. Take measures to prevent build up of electrostatic charge. Good general ventilation should be sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep away from sources of ignition.
Conditions for safe storage:	Store locked up. Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition. Store and use away from heat, sparks, open flame, or any other ignition source. Keep away from incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods. Store under inert gas (e.g. Argon).
Storage incompatibilities:	Combustible substances, Store away from oxidizing agents

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure limits:** 

No data available

#### Appropriate engineering controls:

Good general ventilation should be sufficient to control airborne levels. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

Personal protective equipme	ent
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**Respiratory protection:** Vapor respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves. Hand protection: Eye protection: Splash goggles. Skin and body protection: Lab coat.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Form: Color: Odor: Odor threshold:

No data available No data available

Liquid

0.72

No data available

Melting point/freezing point: **Boiling point/range: Decomposition temperature: Relative density: Kinematic Viscosity:** 

Partition coefficient: n-octanol/water (log Pow) Clear Colorless - Very pale yellow

-132°C (Freezing point) (-206°F) pH: 71°C (160°F) Vapor pressure: No data available No data available

Vapor density: **Dynamic Viscosity:** 

**Evaporation rate:** (Butyl Acetate = 1)

No data available No data available No data available No data available

No data available

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9. PHYSICAL AND CHEMIC Flash point:	-21°C	(-6°F)	Autoignition ter		No data available
lammability (solid, gas):	No dat	a available	Flammability or Lower:	explosive limits: No data availab	le
			Upper:	No data availab	le
Solubility(ies): Water: Very slightly :	soluble				
10. STABILITY AND REAC	ΤΙVITY				
Reactivity: Chemical Stability: Possibility of Hazardous Reac Conditions to avoid: ncompatible materials: Hazardous Decomposition Pro		Not Available. Air sensitive. In use, may form f Air sensitive. Expo Strong oxidizing a No data available	gents	mixture.	
11. TOXICOLOGICAL INFO	RMATION				
RTECS Number: MQ9691000					
Acute Toxicity: pr-mus LD50:>100 mg/kg		scu-mus LD50:>400 mg/kg			
Skin corrosion/irritation: No data available					
Serious eye damage/irritation: No data available					
<b>Respiratory or skin sensitizati</b> No data available	on:				
<b>Germ cell mutagenicity:</b> No data available					
Carcinogenicity:					
No data available					
IARC: No data available		NTP:	No data available	OSHA:	No data available
Reproductive toxicity: No data available					
Routes of Exposure: Symptoms related to exposure		Inhalation, Eye co	ntact, Ingestion, Skin contact		
Skin contact may result in inflam or dry skin. Eye contact may res Potential Health Effects:	mation; chai ult in rednes		g, scaling, reddening, or occas	sionally blistering. Skir	n contact may result in redness, pa
Skin and eye contact may result Aspiration hazard: Farget organ(s):	in irritation.	May be fatal if swa No data available	allowed and enters airways.		
12. ECOLOGICAL INFORM	ATION				
Ecotoxicity					
Fish: Crustacea: Algae:		No data available No data available			

Algae:	No data available
Persistence and degradability:	No data available
Bioaccumulative potential (BCF):	No data available
Mobillity in soil:	No data available

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	AL INFORMATION			
Partition coefficie n-octanol/water (I Soil adsorption (H Henry's Law:	og P <sub>ow</sub> )	No data available No data available No data available		
constant (PaM <sup>3</sup> /m	ol)			
13. DISPOSAL Disposal of produ	CONSIDERATIONS	Recycle to process it	nossible. It is the generat	or's responsibility to comply with Federal, State and Local
Disposal of container:		rules and regulations chemical incinerator assistance but does regulatory compliand Waste are listed in 4 water ways, or the so	You may be able to disso equipped with an afterburn not replace these laws, no e according to the law. US 0 CFR Parts 261. The proceed to the law. US	blve or mix material with a combustible solvent and burn in her and scrubber system. This section is intended to provid r does compliance in accordance with this section ensure SEPA guidelines for Identification and Listing of Hazardous duct should not be allowed to enter the environment, drains
Other considerati	ons:			when disposing of the substance.
14. TRANSPOR	T INFORMATION			
DOT (US) UN number: UN3295	Proper Shipping Na Hydrocarbons, liquid,		<b>Class or Division:</b> 3 Flammable liquid	Packing Group: II
IATA UN number: UN3295	<b>Proper Shipping Na</b> Hydrocarbons, liquid,		<b>Class or Division:</b> 3 Flammable liquid	Packing Group: II
IMDG UN number: UN3295	<b>Proper Shipping Na</b> Hydrocarbons, liquid,		<b>Class or Division:</b> 3 Flammable liquid	Packing Group: 
EmS number:		F-E, S-D		
15. REGULATO	RY INFORMATION			
	Control Act (TSCA 8b.): the EPA Toxic Substand	es Control Act (TSCA)	inventory.	
US Federal Regul	ations			
US Federal Regul	us substance and Repo	<b>rtable Quantity:</b> Not Listed Not Listed		
US Federal Regul CERCLA Hazardo SARA 313:	us substance and Repo	Not Listed		
US Federal Regul CERCLA Hazardo SARA 313: SARA 302: State Regulations State Right-to-Kn	ous substance and Repo	Not Listed Not Listed		
US Federal Regul CERCLA Hazardo SARA 313: SARA 302: State Regulations State Right-to-Kn Massachu New Jerse Pennsylva	ous substance and Repo	Not Listed		
US Federal Regul CERCLA Hazardo SARA 313: SARA 302: State Regulations State Right-to-Kn Massachu New Jerse Pennsylva California Propos	ous substance and Repo	Not Listed Not Listed Not Listed Not Listed Not Listed		
US Federal Regul CERCLA Hazardo SARA 313: SARA 302: State Regulations State Right-to-Kn Massachu New Jerse Pennsylva	ous substance and Repo	Not Listed Not Listed Not Listed Not Listed Not Listed	HMIS Classification:	
US Federal Regul CERCLA Hazardo SARA 313: SARA 302: State Regulations State Right-to-Kn Massachu New Jerse Pennsylva California Propos	ous substance and Repo	Not Listed Not Listed Not Listed Not Listed Not Listed	HMIS Classification: Health: Flammability: Physical:	2 3 0
US Federal Regul CERCLA Hazardo SARA 313: SARA 302: State Regulations State Right-to-Kn Massachu New Jerse Pennsylva California Propos Other Information NFPA Rating: Health: Flammability:	ous substance and Repo	Not Listed Not Listed Not Listed Not Listed Not Listed	Health: Flammability:	3
US Federal Regul CERCLA Hazardo SARA 313: SARA 302: State Regulations State Right-to-Kn Massachu New Jerse Pennsylva California Propos Other Information NFPA Rating: Health: Flammability: Instability:	ow setts y nia ition 65: 2 3 0 ntories	Not Listed Not Listed Not Listed Not Listed Not Listed B2: Flammable Liqui	Health: Flammability: Physical:	3 0

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TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective gogles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.