

### Section 1: Product and Company Identification

**Middlesex Gases & Technologies**

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Product Code: Isooctane

### Section 2: Hazards Identification



**Danger**

**Hazard Classification:**

Acute Aquatic Toxicity (Category 1)  
Aspiration Hazard (Category 1)  
Chronic Aquatic Toxicity (Category 1)  
Flammable (Category 1)  
Gases Under Pressure  
Specific target organ toxicity (Single Exposure) (Category 3)

**Hazard Statements:**

Contains gas under pressure; may explode if heated  
Extremely flammable gas  
May be fatal if swallowed and enters airways  
May cause respiratory irritation;  
Very toxic to aquatic life  
Very toxic to aquatic life with long lasting effects

**Precautionary Statements****Prevention:**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Use only outdoors or in a well-ventilated area.  
Avoid breathing dust/fume/gas/mist/ vapors/spray.  
[In case of inadequate ventilation] wear respiratory protection.

**Response:**

Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
Immediately call a poison center or doctor.  
Eliminate all ignition sources if safe to do so.

Do NOT induce vomiting.  
 If swallowed: Rinse mouth. Do NOT induce vomiting.  
 If inhaled: Remove person to fresh air and keep comfortable for breathing.

**Storage:**

Store in a well-ventilated place. Keep container tightly closed.  
 Protect from sunlight.  
 Store locked up.

**Disposal:**

Dispose of contents and/or container in accordance with applicable regulations.

## Section 3: Composition/Information on Ingredients

<b>CAS #</b>
540-84-1

Chemical Substance	Chemical Family	Trade Names
ISOOCTANE	hydrocarbons, aliphatic	2,2,4-TRIMETHYLPENTANE; ISOBUTYLTRIMETHYLMETHANE; 2,4,4-TRIMETHYLPENTANE; STCC 4908188; UN 1262; C8H18

## Section 4: First Aid Measures

Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.	Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.	Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.	For ingestion, consider gastric lavage.

## Section 5: Fire Fighting Measures

Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
Regular dry chemical, carbon dioxide, water, regular foam Large fires: Use regular foam or flood with fine water spray.	Carbon monoxide, carbon dioxide and toxic and irritating fumes	<ul style="list-style-type: none"> <li>▪ Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.</li> <li>▪ Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.</li> <li>▪ Protective material types: rubber</li> </ul>

## Section 6: Accidental Release Measures

Personal Precautions	Environmental Precautions	Methods for Containment
Keep unnecessary people away, isolate hazard area and deny entry.	Avoid heat, flames, sparks and other sources of ignition.	Top leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition.

Methods for Cleanup	Other Information
Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal.	Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

## Section 7: Handling and Storage

Handling	Storage
Store and use with adequate ventilation. Firmly secure cylinders upright to keep them from falling or being knocked over. Screw valve protection cap firmly in place by hand. Store only where temperature will not exceed 125°F (52°C). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.	Do not get liquid in eyes, on skin, or clothing. Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. Open valve slowly. Close cylinder valve after each use; keep closed even when empty. If valve is hard to open, discontinue use and contact your supplier

## Section 8: Exposure Controls/Personal Protection

Exposure Guidelines
ISOCTANE: OCTANE ISOMERS: 300 ppm ACGIH TWA

### Engineering Controls

Handle only in fully enclosed systems.

Eye Protection	Skin Protection	Respiratory Protection
Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.	Wear appropriate chemical resistant clothing.	Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

### General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

## Section 9: Physical and Chemical Properties

Physical State	Appearance	Color	Change in Appearance	Physical Form	Odor	Taste
Liquid	Clear	Colorless	N/A	Liquid	Gasoline odor	N/A

Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits	Lower Explosive Limits
10 F (-12 C) (CC)	IB	Not available	784 F (418 C)	0.06	0.011

Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity	Water Solubility	pH	Odor Threshold	Evaporation Rate	Viscosity
210 F (99 C)	-161 F (-107 C)	41 mmHg @ 21 C	3.9 (Air=1)	0.69	Insoluble	Not available	Not available	Not available	Not available

Molecular Weight	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
114.23	(C-H3)2-C-H-C-H2-C-(C-H3)3	0.69 g/cm3 at 20 °C (68 °F)	Not available	Not available	Not available	Soluble: Ether, alcohol, acetone, benzene, chloroform, toluene, xylene, carbon disulfide, carbon tetrachloride, dimethylformamide, oils

## Section 10: Stability and Reactivity

Stability	Conditions to Avoid	Incompatible Materials
Stable at normal temperatures and pressure.	Stable at normal temperatures and pressure.	Oxidizing materials, reducing agents

Hazardous Decomposition Products	Possibility of Hazardous Reactions
Oxides of carbon	Will not polymerize.

## Section 11: Toxicology Information

### Acute Effects

Oral LD50	Dermal LD50	Inhalation
>5000 mg/kg oral-rat LD50 (Phillips 66)	>2000 mg/kg skin-rabbit LD50 (Phillips 66)	Irritation, nausea, difficulty breathing, headache, symptoms of drunkenness

Eye Irritation	Skin Irritation	Sensitization
Irritation	Irritation	Respiratory tract irritation, central nervous system depression

### Chronic Effects

Carcinogenicity	Mutagenicity	Reproductive Effects	Developmental Effects
Not available	Available.	Not available	No data

## Section 12: Ecological Information

### Fate and Transport

Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
Fish toxicity: Very toxic to aquatic life. Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Not available	Unlikely	Not available

## Section 13: Disposal Considerations

Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001. Dispose in accordance with all applicable regulations.

## Section 14: Transportation Information

### U.S. DOT 49 CFR 172.101

Proper Shipping Name	ID Number	Hazard Class or Division	Packing Group	Labeling Requirements	Passenger Aircraft or Railcar Quantity Limitations	Cargo Aircraft Only Quantity Limitations	Additional Shipping Description
Octanes	UN1262	3	II	3	5 kg or L	N/A	N/A

### Canadian Transportation of Dangerous Goods

Shipping Name	UN Number	Class	Packing Group / Risk Group
Octanes	UN1262	3	II

## Section 15: Regulatory Information

### U.S. Regulations

CERCLA Sections	SARA 355.30	SARA 355.40
1000 LBS RQ	Not regulated.	Not regulated.

### SARA 370.21

Acute	Chronic	Fire	Reactive	Sudden Release
Yes	No	Yes	No	No

**SARA 372.65**

Not regulated.
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**OSHA Process Safety**

Not regulated.
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**State Regulations****CA Proposition 65**

Not regulated.
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**Canadian Regulations****WHMIS Classification**

B2
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**National Inventory Status**

US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDSL)
Listed on inventory.	Not listed.	Not determined.

**Section 16: Other Information****NFPA Rating**

HEALTH=2 FIRE=3 REACTIVITY=0
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0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard