

SAFETY DATA SHEET



Revision: 3.0 Date: 14 April 2021

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

Iso-Octenes

SECTION 1: IDENTIFICATION

Product identifier

Product name Iso-Octenes

Other means of identification

isooctene; isooctene (dot); 1-pentene, 2,2,4-trimethylpentane

Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s) Refinery feedstock
Uses advised against Anything other than the above.

Details of the supplier of the safety data sheet

Supplier Vitol Inc.
2925 Richmond Ave, 11th Floor
Houston, TX 77098
Telephone (713) 230-1000
Fax 713-230-1185
E-mail (competent person) SDSHOU@vitol.com

Emergency telephone number

Emergency Phone No. Chemtrec: US/Canada: 1-800-424-9300 (24h)
Mexico: 800 681 9531 (24h)

SECTION 2: HAZARD(S) IDENTIFICATION

Classification of the substance or mixture in accordance with paragraph (d) of 29 CFR 1910.1200

Physical hazards Flammable Liquid, Category 2
Health hazards Not classified as hazardous for supply/use.
Environmental hazards Hazardous to the aquatic environment, Chronic, Category 2

Label elements

Hazard Pictogram(s)



Signal Word(s)

DANGER

Hazard Statement(s)

Highly flammable liquid and vapour.
Toxic to aquatic life with long lasting effects.

Precautionary Statement(s)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Wear protective gloves/eye protection/face protection.
Store in a well-ventilated place. Keep cool.
Avoid release to environment.
Dispose of contents in accordance with local, state or national legislation.

Other hazards

None known

Percent of the mixture consists of ingredient(s) of unknown acute toxicity:

0% of the mixture consists of ingredients of unknown acute inhaled toxicity.
0% of the mixture consists of ingredients of unknown acute oral toxicity.
0% of the mixture consists of ingredients of unknown acute dermal toxicity.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures - Substances in preparations / mixtures

Classification: OSHA HCS (29 CFR 1910.1200)

Chemical identity of the substance	%W/W	CAS No.	EC No.	Hazard classification
2,4,4-Trimethyl-1-pentene	70 – 85	107-39-1	203-486-4	Flammable Liquid, Category 2 Hazardous to the aquatic environment, Chronic, Category 2
2,4,4-Trimethyl-2-pentene	15 - 30	107-40-4	203-488-5	Flammable Liquid, Category 2 Hazardous to the aquatic environment, Chronic, Category 2

SECTION 4: FIRST AID MEASURES



Description of first aid measures

Self-protection of the first aider

Inhalation

Skin contact

Eye contact

Ingestion

Most important symptoms and effects, both acute and delayed

Indication of any immediate medical attention and special treatment needed

Notes to a physician:

Ensure adequate ventilation. Avoid breathing vapours. Wear suitable protective clothing and gloves. Avoid contact with skin and eyes. Contaminated clothing should be laundered before reuse. Do not ingest. If swallowed then seek immediate medical assistance.

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation develops and persists, get medical attention.

Rinse mouth. Get medical advice/attention if you feel unwell.

No specific effects and/or symptoms have been reported or known.

Treat symptomatically.

IF ON SKIN: Heated product may cause burns. If burn is present, treat as thermal burn, after decontamination.

SECTION 5: FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Unsuitable extinguishing media

Special hazards arising from the substance or mixture

Advice for firefighters

Extinguish with sand or dry chemical. Foam, Carbon dioxide, Water fog or dry powder

Do not use water jet. Direct water jet may spread the fire.

Highly flammable liquid and vapour. Will float and can be reignited on surface water. A mixture of solid and liquid particulates and gases including unidentified organic and inorganic compounds. May form explosive mixture with air. Prevent liquid entering sewers, basements and any watercourses. Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback.

Fight fire with normal precautions from a reasonable distance. Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Keep containers cool by spraying with water if exposed to fire. Avoid release to the environment. Dike fire control water for later disposal.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Caution - spillages may be slippery. Eliminate sources of ignition. Shut off leaks if without risk. Avoid contact with skin and eyes. Ensure adequate ventilation.

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Methods and material for containment and cleaning up

Avoid breathing vapours. Do not ingest. If swallowed then seek immediate medical assistance.

Provided it is safe to do so, isolate the source of the leak. Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Wash the spillage area with water.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Ensure adequate ventilation. Avoid inhalation of high concentrations of vapours. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Do not ingest. If swallowed then seek immediate medical assistance.

Conditions for safe storage, including any incompatibilities

Storage temperature
Incompatible materials

Keep container tightly closed. Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources.
Keep cool. Protect from sunlight.
Strong oxidising agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

(No Occupational Exposure Limit assigned.
No substance specific American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs)
No substance specific Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs)
No substance specific National Institute for Occupational Safety and Health (NIOSH) Recommended exposure limits (RELs)

Biological exposure indices

Not established

Appropriate engineering controls

Provide adequate ventilation, including appropriate local extraction if dusts, fumes or vapours are likely to be evolved. Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources. Guarantee that the eye flushing systems and safety showers are located close to the working place.

Individual protection measures, such as personal protective equipment

Fuels are typically used, transferred and transported in closed systems. If exposure is likely (i.e. during sampling) the following advice may be appropriate. Keep good industrial hygiene. Always wash hands before smoking, eating and drinking. Do not eat, drink or smoke at the work place.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Eye/ face protection



Use eye protection according to EN 166, designed to protect against liquid splashes.

Skin protection



Wear suitable chemical resistant protective gloves for frequent or prolonged operations tested to EN374 with an acceptable permeation test. Contaminated gloves should be carefully rinsed with water before reuse.

Respiratory protection



When the product is heated / In case of inadequate ventilation wear respiratory protection. The use of a high efficiency filter (recommended: EN143) is recommended. Filter type A1.

Closed system(s): Not normally required.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Colourless liquid
Odour	Gasoline
Odour threshold	Not available
pH	Not available
Melting point/freezing point	-135.4 °F (-93 °C)
Initial boiling point and boiling range	214.5 °F (101.4 °C)
Flash point	31.7 °F (-0.15 °C) Closed Cup
Evaporation rate	Not available
Flammability (solid, gas)	Not applicable - Liquid
Upper/lower flammability or explosive limits	Not available
Vapour pressure	Not available
Vapour density	3.8
Relative density	Not available
Solubility(ies)	Very slightly soluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	736 °F (391.11 °C) (2,4,4-Trimethyl-1-pentene)
Decomposition temperature	Not available
Viscosity	Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No hazardous reactions known if used for its intended purpose.
Conditions to avoid	Keep cool. Protect from sunlight.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition products	Carbon monoxide, Carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity - Ingestion	Based upon the available data, the classification criteria are not met. Calculated acute toxicity estimate (ATE) >2,000 mg/kg.
Acute toxicity - Inhalation	Based upon the available data, the classification criteria are not met. Calculated acute toxicity estimate (ATE) > 5 mg/L (Vapour)
Acute toxicity - Skin contact	Based upon the available data, the classification criteria are not met. Calculated acute toxicity estimate (ATE) >2,000 mg/kg.
Skin corrosion/irritation	Based upon the available data, the classification criteria are not met.
Serious eye damage/irritation	Based upon the available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based upon the available data, the classification criteria are not met.
Germ cell mutagenicity	Based upon the available data, the classification criteria are not met.
Carcinogenicity	Based upon the available data, the classification criteria are not met.
Reproductive toxicity	Based upon the available data, the classification criteria are not met.
STOT - single exposure	Based upon the available data, the classification criteria are not met.
STOT - repeated exposure	Based upon the available data, the classification criteria are not met.
Aspiration hazard	Based upon the available data, the classification criteria are not met.

Information on likely routes of exposure

Inhalation	Possible – accidental exposure
Ingestion	Possible – accidental exposure
Skin contact	Possible – accidental exposure
Eye contact	Unlikely – accidental exposure

Early onset symptoms related to exposure None known

Delayed health effects from exposure None known

Exposure levels and health effects See Section: 8

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Interactive effects None known

Other information

OSHA Designated Carcinogen	Not listed
NIOSH Occupational Carcinogen List	Not listed
NTP Report on Carcinogens	Not listed
IARC Monographs	Not listed

SECTION 12: ECOLOGICAL INFORMATION

Toxicity	Hazardous to the aquatic environment, Chronic, Category 2: Toxic to aquatic life with long lasting effects.
	EU Harmonised Classification
Persistence and degradability	No data for the mixture as a whole.
2,4,4-Trimethyl-1-pentene	No data
2,4,4-Trimethyl-2-pentene	No data
Bioaccumulative potential	No data for the mixture as a whole.
2,4,4-Trimethyl-1-pentene	No data
2,4,4-Trimethyl-2-pentene	No data
Mobility in soil	No data for the mixture as a whole.
2,4,4-Trimethyl-1-pentene	No data
2,4,4-Trimethyl-2-pentene	No data
Other adverse effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods Dispose of this material and its container as hazardous waste. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Disposal should be in accordance with local, state or national legislation. Containers of this material may be hazardous when empty since they retain product residue.

SECTION 14: TRANSPORT INFORMATION

	Road/rail (ADR/RID)	Sea transport (IMDG)	Air (ICAO/IATA)
UN number	UN1216	UN1216	UN1216
UN proper shipping name	ISOCTENES	ISOCTENES	ISOCTENES
Transport hazard class(es)	3	3	3
Packing group	II	II	II
Environmental hazards	Environmentally hazardous substance	Classified as a Marine Pollutant.	Environmentally hazardous substance
Special precautions for user	See Section: 2		
Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable		

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

US Federal Regulations

TSCA Chemical Data Reporting (CDR) Rule	TSCA Inventory Status: All chemicals in this product comply with TSCA rules and regulations including TSCA Section 5 (Inventory Rules).
NIOSH Occupational Carcinogen List	Not listed
EPCRA Section 313	Not listed
CWA 307- Toxic	Not listed
CERCLA - Hazardous Substances	Not listed
CWA Section 311 List of Hazardous Substances	Not listed

US State Regulations

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Proposition 65 (California)	Not listed
Massachusetts, New Jersey, Pennsylvania, Rhode Island- State Right to Know Lists	2,4,4-Trimethyl-1-pentene: Listed (Massachusetts, Pennsylvania)
New York -State Right to Know Lists	2,4,4-Trimethyl-2-pentene: Listed (Massachusetts, Pennsylvania)
Minnesota - State Right to Know Lists	Not listed
Massachusetts – Toxic Use reduction act	Not listed

Non-Regional

IARC Monographs	Not listed
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SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: Updated substance / mixture classification. Updated version and date. New format has been issued, all sections have been updated to include new information. Review SDS with care.

Version	3.0
Revision Date	14 April 2021
Date of First Issue	Not available. 2 ND ISSUE RELEASED JUNE, 15 2015

This Safety Data Sheet was prepared in accordance with US Regulation OSHA HCS (29 CFR 1910.1200)

References:

Existing Safety Data Sheet (SDS),
EU Harmonised Classification(s) for 2,4,4-trimethylpent-1-ene (CAS No. 107-39-1).
EU classification and labelling inventory for 2,4,4-trimethylpent-2-ene (CAS No. 107-40-4)

Classification of the substance or mixture in accordance with paragraph (d) of 29 CFR 1910.1200	Classification procedure
Flammable Liquid, Category 2	Flash point (°C) / Boiling Point (°C)
Hazardous to the aquatic environment, Chronic, Category 2	Summation Calculation

Legend

ADR/RID	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road / RID: Regulations concerning the international railway transport of dangerous goods
BCF	Bioconcentration factor (BCF)
CAS	CAS: Chemical Abstracts Service
DNEL	Derived no effect level
EC	EC: European Community
EU	European Union
IATA	IATA: International Air Transport Association
ICAO/IATA	ICAO: International Civil Aviation Organization / IATA: International Air Transport Association
IMDG	IMDG: International Maritime Dangerous Goods
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
UN	United Nations
vPvB	very Persistent and very Bioaccumulative

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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