

## Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 22.07.2024

Version number 65.3 (replaces version 65.2)

Revision: 18.06.2024

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

**Trade name:** Isooctane ASTM

**Article number:** 205484

**CAS N°:** 540-84-1

**EC N°:** 208-759-1

**Index number:** 601-009-00-8

**Registration number** 01-2119457965-22-0001

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

**Identified uses**

- Manufacture of substance - Industrial
- Distribution of substance - Industrial
- Formulation and (re)packaging of substances and mixtures - Industrial
- Use in Coatings - Industrial
- Use in Coatings - Professional
- Use in Coatings - Consumer
- Use in Cleaning Agents - Industrial
- Use in Cleaning Agents - Professional
- Use in Cleaning Agents - Consumer
- Use as a Fuel - Industrial
- Use as a Fuel - Professional
- Use as a Fuel - Consumer
- Use in Laboratories - Industrial
- Use in Laboratories - Professional

#### Application of the substance / the mixture

Solvents

#### 1.3 Details of the supplier of the safety data sheet

**Manufacturer/Supplier:** Haltermann Carless Deutschland GmbH  
Schlengendeich 17  
21107 Hamburg, Germany  
+49 (0)40 333 18 0  
MSDS-HCDE@h-c-s-group.com

**Informing department:** Product Stewardship

#### 1.4 Emergency telephone

**number:** CHEMTREC +1-703-527-3887 / +44 20 3885 0382 (EMEA) / +44 20 3807 3798 (UK)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

#### 2.2 Label elements

##### Labelling according to

**Regulation (EC) No 1272/2008** The substance is classified and labelled according to the CLP regulation.

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**Hazard pictograms****Signal word**

Danger

**Hazard-determining components****of labelling:**

2,2,4-trimethylpentane

**Hazard statements**

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P321 Specific treatment (see on this label).

P331 Do NOT induce vomiting.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3 Other hazards****Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

**SECTION 3: Composition/information on ingredients****3.1 Substances**

CAS No. Designation: 540-84-1 2,2,4-trimethylpentane

Identification number(s):

EC N°: 208-759-1

Index number: 601-009-00-8

**SECTION 4: First aid measures****4.1 Description of first aid measures****General information**

Instantly remove any clothing soiled by the product.

**After inhalation**

In case of unconsciousness bring patient into stable side position for transport.

**After skin contact**

Instantly wash with water and soap and rinse thoroughly.

Instantly rinse with water.

**After eye contact**

Rinse opened eye for several minutes under running water.

**After swallowing**

Do not induce vomiting; instantly call for medical help.

**4.2 Most important symptoms and effects, both acute and delayed****danger**

No further relevant information available.

**Danger**

Aspiration hazard

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#### 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing agents** CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol-resistant foam.

#### 5.2 Special hazards arising from the substance or mixture

The vapour is heavier than air, spreads along the ground and ignition at a greater distance is possible.

#### 5.3 Advice for firefighters

**Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

#### 6.2 Environmental precautions:

Do not allow product to reach sewage system or water bodies.  
Prevent material from reaching sewage system, holes and cellars.  
Inform respective authorities in case product reaches water or sewage system.

#### 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste according to item 13.  
Ensure adequate ventilation.

#### 6.4 Reference to other sections

See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Keep containers tightly sealed.  
Store in cool, dry place in tightly closed containers.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.

#### Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.

#### 7.2 Conditions for safe storage, including any incompatibilities

##### Storage

#### Requirements to be met by storerooms and containers:

Store in cool location.

#### Information about storage in one common storage facility:

Not required.

#### Further information about storage conditions:

Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.

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**Trade name: Isooctane ASTM****7.3 Specific end use(s)** No further relevant information available.
**SECTION 8: Exposure controls/personal protection**
**8.1 Control parameters****Components with critical values****that require monitoring at the****workplace:**

Not required.

**DNELs****540-84-1 2,2,4-trimethylpentane**

Oral Consumers 699 mg/kg bw/day (Long-term - systemic)

Dermal Workers 773 mg/kg bw/day (Long-term - systemic)

Consumers 699 mg/kg bw/day (Long-term - systemic)

Inhalative Workers 2,035 mg/m<sup>3</sup> (Long-term - systemic)Consumers 608 mg/m<sup>3</sup> (Long-term - systemic)**Additional information:**

The lists that were valid during the compilation were used as basis.

**8.2 Exposure controls****Appropriate engineering****controls**

No further data; see section 7.

**Individual protection measures, such as personal protective equipment****General protective and hygienic****measures**

Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the skin.

Do not ingest.

**Breathing equipment:**

Ensure good ventilation. This can be achieved by using a local exhaust or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device. Filter A.

**Hand protection**

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Nitrile rubber, NBR

&gt; 0,38 mm

**Penetration time of glove material**

&gt; 480 min (EN 374)

**Eye/face protection**

Tightly sealed safety glasses.

**SECTION 9: Physical and chemical properties**
**9.1 Information on basic physical and chemical properties****General Information****Physical state**

Fluid

**Colour:**

Colourless

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<b>Smell:</b>	Nearly odourless
<b>Odour threshold:</b>	Not determined.
<b>Melting point/freezing point:</b>	-107 °C
<b>Boiling point or initial boiling point and boiling range</b>	99 °C
<b>Flammability</b>	Highly flammable.
<b>Lower and upper explosion limit</b>	
<b>Lower:</b>	1.1 Vol %
<b>Upper:</b>	6 Vol %
<b>Flash point:</b>	-12 °C
<b>Auto-ignition temperature:</b>	410 °C
<b>Decomposition temperature:</b>	Not determined.
<b>pH</b>	Not determined.
<b>Viscosity:</b>	
<b>Kinematic viscosity</b>	Not determined.
<b>dynamic:</b>	Not determined.
<b>Solubility</b>	
<b>Water:</b>	Not miscible or difficult to mix
<b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
<b>Vapour pressure:</b>	Not determined.
<b>Density and/or relative density</b>	
<b>Density at 20 °C</b>	0.69 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>9.2 Other information</b>	
<b>Appearance:</b>	
<b>Form:</b>	Fluid
<b>Important information on protection of health and environment, and on safety.</b>	
<b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/steam mixtures is possible.
<b>Solvent content:</b>	
<b>VOC content (EU)</b>	100 %
<b>Change in condition</b>	
<b>Softening point/range</b>	
<b>Oxidising properties</b>	Not applicable.
<b>Evaporation rate</b>	Not determined.
<b>Information with regard to physical hazard classes</b>	
<b>Explosives</b>	Void
<b>Flammable gases</b>	Void
<b>Aerosols</b>	Void
<b>Oxidising gases</b>	Void
<b>Gases under pressure</b>	Void
<b>Flammable liquids</b>	Highly flammable liquid and vapour.
<b>Flammable solids</b>	Void
<b>Self-reactive substances and mixtures</b>	Void
<b>Pyrophoric liquids</b>	Void
<b>Pyrophoric solids</b>	Void

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<b>Self-heating substances and mixtures</b>	Void
<b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
<b>Oxidising liquids</b>	Void
<b>Oxidising solids</b>	Void
<b>Organic peroxides</b>	Void
<b>Corrosive to metals</b>	Void
<b>Desensitised explosives</b>	Void

### SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	No further relevant information available.
<b>10.2 Chemical stability</b>	
<b>Conditions to be avoided:</b>	No decomposition if used according to specifications.
<b>10.3 Possibility of hazardous reactions</b>	No dangerous reactions known
<b>10.4 Conditions to avoid</b>	No further relevant information available.
<b>10.5 Incompatible materials:</b>	No further relevant information available.
<b>10.6 Hazardous decomposition products:</b>	None

### SECTION 11: Toxicological information

#### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Acute toxicity** Based on available data, the classification criteria are not met.

#### LD/LC50 values that are relevant for classification:

#### 540-84-1 2,2,4-trimethylpentane

Oral LD50 >5,000 mg/kg (rat) (OECD 401)

Dermal LD50 >2,000 mg/kg (rabbit) (OECD 402)

Inhalative LC50 /4 h >33.52 mg/L (rat) (OECD 403)

**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/irritation** Based on available data, the classification criteria are not met.

**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** Based on available data, the classification criteria are not met.

**Reproductive toxicity** Based on available data, the classification criteria are not met.

**STOT-single exposure** May cause drowsiness or dizziness.

**STOT-repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** May be fatal if swallowed and enters airways.

#### 11.2 Information on other hazards

#### Endocrine disrupting properties

Substance is not listed.

### SECTION 12: Ecological information

#### 12.1 Toxicity

**Aquatic toxicity:** No further relevant information available.

#### 12.2 Persistence and

**degradability** No further relevant information available.

**12.3 Bioaccumulative potential** No further relevant information available.

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<b>12.4 Mobility in soil</b>	No further relevant information available.
<b>12.5 Results of PBT and vPvB assessment</b>	
<b>PBT:</b>	Not applicable.
<b>vPvB:</b>	Not applicable.
<b>12.6 Endocrine disrupting properties</b>	The product does not contain substances with endocrine disrupting properties.
<b>12.7 Other adverse effects</b>	
<b>Remark:</b>	Very toxic for fish
<b>Additional ecological information:</b>	
<b>General notes:</b>	Do not allow product to reach ground water, water bodies or sewage system. Danger to drinking water if even small quantities leak into soil. Also poisonous for fish and plankton in water bodies. Very toxic for aquatic organisms

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

**Recommendation** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

#### Uncleaned packagings:

**Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

#### 14.1 UN number or ID number

**ADR/RID, IMDG, IATA** UN1262

#### 14.2 UN proper shipping name

**ADR/RID** 1262 OCTANES, ENVIRONMENTALLY HAZARDOUS  
**IMDG** OCTANES, MARINE POLLUTANT  
**IATA** OCTANES

#### 14.3 Transport hazard class(es)

##### ADR/RID



**Class** 3 (F1) Flammable liquids.  
**Label** 3

##### IMDG



**Class** 3 Flammable liquids.


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<b>Label</b>	3
<b>IATA</b>	
	
<b>Class</b>	3 Flammable liquids.
<b>Label</b>	3
<b>14.4 Packing group ADR/RID, IMDG, IATA</b>	II
<b>14.5 Environmental hazards:</b>	
<b>Marine pollutant:</b>	Yes Symbol (fish and tree)
<b>Special marking (ADR/RID):</b>	Symbol (fish and tree)
<b>14.6 Special precautions for user</b>	Warning: Flammable liquids.
<b>Kemler Number:</b>	33
<b>EMS Number:</b>	F-E,S-E
<b>Segregation groups</b>	IMDG Code Segregation group: None
<b>Stowage Category</b>	B
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
<b>Transport/Additional information:</b>	
<b>ADR/RID</b>	
<b>Limited quantities (LQ)</b>	1L
<b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<b>Transport category</b>	2
<b>Tunnel restriction code</b>	D/E
<b>IMDG</b>	
<b>Limited quantities (LQ)</b>	1L
<b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<b>UN "Model Regulation":</b>	UN 1262 OCTANES, 3, II, ENVIRONMENTALLY HAZARDOUS

### SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
TSCA (Toxic Substances Control Act)**

: ACTIVE

**Canadian Domestic Substances List (DSL)**

Substance is listed.



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**Trade name: Isooctane ASTM****Philippines Inventory of Chemicals and Chemical Substances (PICCS)**

Substance is listed.

**Chinese Chemical Inventory of Existing Chemical Substances (IECSC)**

Substance is listed.

**Australian Inventory of Industrial Chemicals (AIIC)**

Substance is listed.

**Korean Existing Chemical Inventory (KECI)**

Substance is listed.

**New Zealand Inventory of Chemicals (NZIoC)**

Substance is listed.

**Taiwan Chemical Substance Inventory (TCSI)**

Substance is listed.

**Japan Existing and New Chemical Substance List (ENCS)**

Substance is listed.

**Directive 2012/18/EU****Named dangerous substances -****ANNEX I**

Substance is not listed.

**Seveso category**

E1 Hazardous to the Aquatic Environment

P5c FLAMMABLE LIQUIDS

**Qualifying quantity (tonnes) for  
the application of lower-tier  
requirements**

100 t

**Qualifying quantity (tonnes) for  
the application of upper-tier  
requirements**

200 t

**REGULATION (EC) No 1907/2006****ANNEX XVII**

Conditions of restriction: 3

**DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

Substance is not listed.

**REGULATION (EU) 2019/1148****Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

Substance is not listed.

**Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

Substance is not listed.

**Regulation (EC) No 273/2004 on drug precursors**

Substance is not listed.

**Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

Substance is not listed.

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#### 15.2 Chemical safety assessment:

A Chemical Safety Assessment has been carried out.

#### SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Date of previous version:** 05.03.2024**Version number of previous  
version:** 65.2**Abbreviations and acronyms:** RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
ICAO: International Civil Aviation Organisation  
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
VOC: Volatile Organic Compounds (USA, EU)  
DNEL: Derived No-Effect Level (REACH)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Flam. Liq. 2: Flammable liquids – Category 2  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
Asp. Tox. 1: Aspiration hazard – Category 1  
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1  
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

\* Data compared to the previous  
version altered.

#### Annex: Exposure scenario

**Short title of the exposure  
scenario**iso-Octane  
EC number: 208-759-1  
[http://pydio.haltermann.com/data/public/es\\_iso-octane.pdf](http://pydio.haltermann.com/data/public/es_iso-octane.pdf)