

Safety Data Sheet

Isononanol

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Version: 2.0

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(30644633/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

Isononanol

Recommended use of the chemical and restriction on use

Recommended use*: Chemical

Recommended use*: for industrial use only

Unsuitable for use: Not intended for sale to or use by the general public.

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family: aliphatic alcohol

2. Hazards Identification

According to Regulation 2024 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Flam. Liq.	4	Flammable liquids
Skin Irrit.	2	Skin irritation
Eye Dam.	1	Serious eye damage
Aquatic Acute	2	Hazardous to the aquatic environment - acute

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Label elements

Pictogram:



Signal Word:

Danger

Hazard Statement:

H227	Combustible liquid.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H401	Toxic to aquatic life.

Precautionary Statements (Prevention):

P280	Wear protective gloves and eye protection or face protection.
P273	Avoid release to the environment.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or physician.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use alcohol-resistant foam, carbon dioxide, dry powder or water spray for extinction.

Precautionary Statements (Storage):

P403	Store in a well-ventilated place.
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Precautionary Statements (Disposal):

P501	Dispose of contents/container in accordance with local regulations.
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Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition / Information on Ingredients

According to Regulation 2024 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Nonanol, branched and linear

CAS Number: 68515-81-1

Content (W/W): ≥ 100.0 - $\leq 100.0\%$

Synonym: No data available.

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The actual concentration is withheld as a trade secret.
NJ TSRN: New Jersey Trade Secret Registry Number

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

If on skin:

Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Seek medical attention.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Information on: isononyl alcohol

Symptoms: Overexposure may cause: corneal injury, skin corrosion, severe pain, coughing, respiratory disorders, dyspnea, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps

Hazards: No hazard is expected under intended use and appropriate handling.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment:	Treat according to symptoms (decontamination, vital functions), no known specific antidote.
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5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:

water spray, dry powder, alcohol-resistant foam, carbon dioxide

Unsuitable extinguishing media for safety reasons:

water jet

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Special hazards arising from the substance or mixture

Hazards during fire-fighting:

The product is combustible. Cool endangered containers with water-spray.

Advice for fire-fighters

Protective equipment for fire-fighting:

Wear a self-contained breathing apparatus.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Keep containers cool by spraying with water if exposed to fire. Foam should be applied in large quantities as it is broken down to some extent by the product.

6. Accidental release measures

Further accidental release measures:

High risk of slipping due to leakage/spillage of product.

Shut off or stop source of leak. Shut off or stop released substance/product under safe conditions.

Pack in tightly closed containers for disposal.

Personal precautions, protective equipment and emergency procedures

Handle in accordance with good industrial hygiene and safety practice.

Environmental precautions

Do not discharge into the subsoil/soil.

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material.

Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling

Ensure adequate ventilation. Avoid contact with the skin, eyes and clothing. Avoid all sources of ignition: heat, sparks, open flame.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Containers should be stored tightly sealed in a dry place.

Protect from temperatures above: 100 °C

Damage by exceeding the maximum temperature is not reversible. The packed product must be protected against exceeding the indicated temperature.

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8. Exposure Controls/Personal Protection

No occupational exposure limits known.

Advice on system design:

No applicable information available.

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Tightly fitting safety goggles (chemical goggles) and face shield.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit., Protective coverall and/or impermeable apron and boots as necessary.

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Physical state:	liquid	
Form:	liquid	
Odour:	faint odour	
Odour threshold:	not determined	
Colour:	colourless	
pH value:	not applicable	
Melting point:	< -100 °C (approx. 999 hPa)	(measured)
Boiling point:	202.71 °C (1,013 hPa)	(measured)
Flash point:	93 °C	(DIN 51755, closed cup)
Flammability:	hardly combustible	(derived from flash point)
Lower explosion limit:	For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Autoignition:	280 °C	(Directive 84/449/EEC, A.15)
Vapour pressure:	approx. 0.026 hPa (20 °C) dynamic	(measured)

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Density:	0.83 g/cm ³ (20 °C)	(DIN 53217)
Relative density:	approx. 0.83 (20 °C)	(Directive 92/69/EEC, A.3)
Relative vapour density:	not determined	
Partitioning coefficient n-octanol/water (log Pow):	3.8 (26 °C)	(Directive 84/449/EEC, A.8)
Self-ignition temperature:	not self-igniting	
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Viscosity, dynamic:	12.95 mPa.s (20 °C) The value was determined by calculation from the detected kinematic viscosity.	
Viscosity, kinematic:	approx. 15.8 mm ² /s (20 °C)	(OECD Guideline 114)
Solubility in water:	approx. 245 mg/l (20 °C)	
Solubility (quantitative):	No applicable information available.	
Solubility (qualitative):	soluble	
	solvent(s): organic solvents,	
Molecular weight:	144.26 g/mol	
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	

Particle characteristics

Particle size distribution: The substance / product is marketed or used in a non solid or granular form.

10. Stability and Reactivity

Reactivity

No applicable information available.

Corrosion to metals:

No corrosive effect on metal.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing. (other)

Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.
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Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Reacts with strong oxidizing agents.

Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame.

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Incompatible materials

strong oxidizing agents

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Of low toxicity after single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation.

Oral

Type of value: LD50

Species: rat (male/female)

Value: 3,950 mg/kg (OECD Guideline 401)

Inhalation

Type of value: LC50

Species: rat (no data)

Value: > 21.7 mg/l (BASF-Test)

Exposure time: 7 h

An aerosol was tested.

No mortality was observed.

Dermal

Type of value: LD50

Species: rat (male/female)

Value: > 4,000 mg/kg (OECD Guideline 402)

Assessment other acute effects

Assessment of STOT single:

not applicable

Irritation / corrosion

Assessment of irritating effects: Skin contact causes irritation. May cause severe damage to the eyes.

Skin

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Species: rabbit
Result: Irritant.
Method: OECD Guideline 404

Eye

Species: rabbit
Result: irreversible damage
Method: OECD Guideline 405

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Buehler test

Species: guinea pig
Result: Non-sensitizing.
Method: OECD Guideline 406

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Repeated oral uptake of the substance did not cause substance-related effects.

Genetic toxicity

Assessment of mutagenicity: The substance was not mutagenic in bacteria. The chemical structure does not suggest a specific alert for such an effect.

Carcinogenicity

Assessment of carcinogenicity: No data available concerning carcinogenic effects. The chemical structure does not suggest a specific alert for such an effect.

Reproductive toxicity

Assessment of reproduction toxicity: No data available. The chemical structure does not suggest a specific alert for such an effect.

Teratogenicity

Assessment of teratogenicity: Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Acutely toxic for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish

LC50 (96 h) 11 mg/l, Cyprinus carpio (OECD 203; ISO 7346; 84/449/EWG, C.1, semistatic)
The statement of the toxic effect relates to the analytically determined concentration.

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Aquatic invertebrates

EC50 (48 h) 9 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

The statement of the toxic effect relates to the analytically determined concentration.

Aquatic plants

EC50 (72 h) 11 mg/l (growth rate), Desmodemus subspicatus (Guideline 92/69/EEC, C.3)

The statement of the toxic effect relates to the analytically determined concentration.

Chronic toxicity to fish

No data available regarding toxicity to fish.

Chronic toxicity to aquatic invertebrates

No data available regarding toxicity to daphnids.

Assessment of terrestrial toxicity

No data available concerning terrestrial toxicity.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

DIN EN ISO 10712 bacterium/EC10 (6 h): 114.5 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

Readily biodegradable (according to OECD criteria).

Elimination information

79 % CO₂ formation relative to the theoretical value (28 d) (OECD 301B; ISO 9439; 92/69/EWG, C.4-C) (aerobic, activated sludge, domestic)

Assessment of stability in water

According to structural properties, hydrolysis is not expected/probable.

Bioaccumulative potential

Assessment bioaccumulation potential

Significant accumulation in organisms is not to be expected.

Bioaccumulation potential

Bioconcentration factor: < 100 (14 d), Oncorhynchus mykiss (OECD Guideline 305 E)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Mobility in soil

Assessment transport between environmental compartments

The substance will slowly evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is possible.

Additional information

Adsorbable organically-bound halogen(AOX):

This product contains no organically-bound halogen.

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Other ecotoxicological advice:
No data available.

13. Disposal considerations

Waste disposal of substance:

Must be disposed of or incinerated in accordance with local regulations. Dispose of in accordance with national, state and local regulations.

Do not discharge into waterways or sewer systems without proper authorization.

Container disposal:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

Land transport
USDOT

Classified as combustible liquid in containers greater than 119 gallons.

Sea transport
IMDG

Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US

All substances are TSCA listed and active.

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

NFPA Hazard codes:

Health: 3 Fire: 2 Reactivity: 0 Special:

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Acute Tox.	5 (oral)	Acute toxicity
Skin Irrit.	2	Skin irritation
Eye Dam.	1	Serious eye damage
Aquatic Acute	2	Hazardous to the aquatic environment - acute

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Flam. Liq.

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Flammable liquids

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2025/06/24

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