



Safety Data Sheet

SDS has been prepared in accordance with Regulation (EC) No. 453/2010

This Safety Data Sheet is written in reference to a sealed glass ampoule containing 10ml of the product named below.

Section 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Substance name: Dodecane

Synonyms: nC12	Product type: Liquid density standard	Date revised: Apr 2024 Previous: Jun 2022
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EC No: 203-967-9	CAS No.: 112-40-3
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1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: For use in the calibration of density meters.

Uses advised against:

1.3 Details of the supplier of the Safety Data Sheet

Company: H&D Fitzgerald Ltd.
Address: Cefn Du, Tremeirchion, St Asaph, Denbighshire, LL17 0US, UK
Telephone #: +44 (0)1352 720 774
Email address: admin@density.co.uk

1.4 Emergency telephone number

+44 (0)1352 720 774

Section 2 Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No1272/2008 [CLP]:

Aspiration hazard (Category 1), H304

2.2 Label elements

Pictogram:



Signal word: Danger

Hazard statement(s): H304 May be fatal if swallowed and enters airways.

Precautionary statement(s): P301+P310 If SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P331 Do NOT induce vomiting.

Supplemental hazard statement(s): None.

2.3 Other hazards

This substance/ mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Section 3 Composition / Information on ingredients

Substance name: Dodecane			Synonyms:	
C.A.S. No.	EINECS No.	Index-No. in CLP Annex IV	Classification	Concentration
112-40-3	203-967-9	-	Asp. Tox. 1; H304	<=100%
For full text of H-statements mentioned in this section, see Section 16.				
Formula:	$C_{12}H_{26}$			
Molecular Weight:	170.33g/mol			

Section 4 First Aid measures

4.1 Description of first aid measures	
General advice:	Consult a physician. Show this safety data sheet to the doctor in attendance.
Following inhalation:	If breathed in, move the person into fresh air. If not breathing give artificial respiration. Consult a physician.
Following ingestion:	Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Following eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Following skin contact:	Wash off with soap and plenty of water. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed	
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.	
4.3 Indication of any immediate medical attention and special treatment needed	
No data available.	

Section 5 Fire fighting measures

5.1 Extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2 Special hazards arising from the substance or mixture	Carbon oxides.
5.3 Advice for firefighters	Wear self contained breathing apparatus for fire fighting if necessary.
5.4 Further information	Use water spray to cool unopened containers.

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Protective equipment: Wear safety glasses with side shields and handle with gloves conforming to EN374.

Personal precautions: Use personal protective equipment.
Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Remove all sources of ignition. Evacuate personnel to safe areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so.
Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste.
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

Section 8 and 13.

Section 7 Handling and storage

7.1 Precautions for safe handling

Handling precautions: Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Keep away from sources of ignition – No smoking. Take measures to prevent the build up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

Storage precautions: Store ampoule in the outer packaging until ready to use.
Store in a cool well-ventilated place.
Do not store the ampoule once opened, dispose of as hazardous waste.

7.3 Specific end use(s)

Recommendations: Liquid density standard for calibration of density meters.

Section 8 Exposure controls and personal protection

8.1 Control parameters

Components with work place control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment

Eye/Face protection: Wear safety glasses with side shields conforming to EN166.

Hand protection: Handle with gloves conforming to EN374.

Other skin protection: Use of protective clothing is good industrial practise.

Respiratory protection: None needed in the quantity supplied in an ampoule.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practise.
Wash hands with soap before breaks and at the end of the workday.

Environmental exposure controls

Prevent further leakage or spillage if safe to do so.
Do not let product enter drains.

Section 9 Physical and chemical properties			
9.1 Information on basic physical and chemical properties			
Appearance: Colourless, liquid	Odour: no data available	Odour threshold: no data available	pH: no data available
Freezing point: -9.6°C – lit.	Boiling point & range: 215 – 217°C – lit.	Flash point: 70°C – closed cup	Evaporation rate: no data available
Flammability (solid/ gaseous): no data available	Upper/lower flammability or explosive limits: Lower explosion limit: 0.6 %(V)	Vapour pressure: 1 hPa at 47.80 °C	Vapour density: 5.88 - (Air = 1.0)
Density of liquid: ~750 kg/m ³ at 20°C	Water solubility: insoluble	Partition coefficient: n-octanol/water log Pow: 6.98 at 25 °C	Auto-ignition temperature: no data available
Decomposition temperature: no data available	Viscosity: no data available	Explosive properties: no data available	Oxidising properties: no data available
9.2 Other information	No data available.		

Section 10 Stability and reactivity	
10.1 Reactivity	No data available.
10.2 Chemical stability	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	No data available.
10.4 Conditions to avoid	Exposure to moisture may affect product quality. Heat, flames and sparks.
10.5 Incompatible materials	Strong oxidizing agents.
10.6 Hazardous decomposition products	Other decomposition products - No data available In the event of fire: see section 5

Section 11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Inhalation:	LC ₅₀ (rat): > 9.3 mg/l - 4 h (OECD Test Guideline 403) LC ₅₀ (rat): > 5.6 mg/l - 4 h (OECD Test Guideline 403)
Ingestion:	LC ₅₀ (rat): > 5000 mg/kg (OECD Test Guideline 401)
Skin corrosion/irritation:	Rabbit. Result: No skin irritation (OECD Test Guideline 404)
Serious eye damage/irritation:	Eyes - Rabbit. Result: No eye irritation (OECD Test Guideline 405)
Respiratory/Skin sensitisation:	Maximisation Test (GPMT) - Guinea pig Did not cause sensitisation on laboratory animals. (OECD Test Guideline 406)
Germ cell mutagenicity:	No data available.
Carcinogenicity:	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity:	No data available.
Specific target organ toxicity – single exposure:	No data available
Specific target organ toxicity – repeated exposure:	No data available
Aspiration hazard:	The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Additional information:	RTECS: JR2125000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
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Section 12 Ecological information

12.1 Toxicity

Toxicity to fish:	LC ₅₀ - Oncorhynchus mykiss (rainbow trout) - > 1,000 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates:	Remarks: No toxicity at the limit of solubility
Toxicity to algae:	EC50 - Skeletonema costatum - 57,100 mg/l - 72 h

12.2 Persistence and degradability

Biodegradability:	Aerobic - Exposure time 28 d. Result: 83 % - Readily biodegradable (OECD Test Guideline 301F)
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12.3 Bioaccumulative potential

Bioaccumulation:	Leuciscus idus melanotus – 3 d - 37 µg/l Bioconcentration factor (BCF): 52
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12.4 Mobility in soil	No data available
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12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects	No data available
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Section 13 Disposal considerations

13.1 Waste treatment methods

General requirements: Observe all national and local environmental regulations.

Contaminated packaging: Dispose of as unused product.

Section 14 Transport information

Not dangerous goods.

Section 15 Regulatory information

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

This safety data sheet complies with the requirements of Regulation (EC) No. 453/2010.

15.2 Chemical safety assessment

No chemical assessment has been carried out for this substance by the supplier.

Section 16 Other information

Text of H-code(s) and R-phrase(s) mentioned in Sections 2 & 3

Asp. Tox. Aspiration hazard

H304 May be fatal if swallowed and enters airways.

Reason for revision: Biennial review.

Disclaimer

H&D Fitzgerald Ltd believes that data given here is accurate. It is derived from published information about dodecane. No warranty, expressed or implied, is intended. The data is provided for your information and consideration when using dodecane as a liquid density standard for the calibration of density meters. H&D Fitzgerald Ltd assumes no legal responsibility for its use.