

1: Identification of substance / mixture

1. Product Identifier

Mixture

Product Name **1-Azido-4-nitrobenzene 0.1M in MeTHF 100mg = 6.25mL solution**
Product Code 099705
CAS Number 1516-60-5
Other Names
IUPAC
MFCD Number
EC/EINECS
REACH Number Index-No

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

3. Details of the supplier of the safety data sheet

Fluorochem Ltd
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Hadfield
Derbyshire
SK13 1QH
UK

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Email: sds@fluorochem.co.uk

fluorochem

4. Emergency telephone number

+44(0)7855 268577 -

2. Hazards Identification

1. Classification of the substance or mixture

H225	Flam. Liq. 2	
H302	Acute Tox. 4	
H315	Skin Irrit. 2	
H318	Eye Dam. 1	
H332	Acute Tox. 4	

2. Label elements

Signal Word **Danger**



Hazard Statements

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.

Precautionary Phrases

P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P240	Ground/bond container and receiving equipment.
P243	Take precautionary measures against static discharge.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents/container to local regulations

3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

3. Composition / Information on Ingredients

2. Mixtures

Product Name	Hazards	Concentration
Tetrahydro-2-methylfuran		
CAS Number: 96-47-9 EC/EINECS: 202-507-4	H225, H302, H315, H318 Acute Tox. 4, Eye Dam. 1, Flam. Liq. 2, Skin Irrit. 2	90-95%
1-Azido-4-nitrobenzene		
CAS Number: 1516-60-5	H302, H332 Acute Tox. 4	5-10%

4. First Aid Measures

1. Description of first aid measures

<i>Skin Contact</i>	P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P332 + P313: If skin irritation occurs: Get medical advice/attention.
<i>Eye Contact</i>	P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<i>Ingestion</i>	Wash out mouth with water.
<i>Inhalation</i>	Remove casualty from exposure ensuring one's own safety whilst doing so.

2. Most important symptoms and effects

There may be irritation and redness.
Severe burns may occur.

3. Indication of any immediate medical attention

No additional measures required

5. Firefighting measures

1. Extinguishing Media

<i>Suitable</i>	P370 + P378: In case of fire: Use sand, CO2 or extinguishing powder for extinction. Do not use water.
<i>Unsuitable</i>	Water.

2. Special Hazards arising from the substance or mixture

In combustion toxic fumes may form.

3. Advice for Fire Fighters

Wear self-contained breathing apparatus.
Wear protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measures

1. Personal Precautions

Do not attempt to take action without suitable protective clothing – see section 8 of SDS.
If outside keep bystanders upwind and away from danger point.
Eliminate all sources of ignition.
Evacuate the area immediately.

2. Environmental Precautions

Do not discharge into drains or rivers.
Contain the spillage using bunding.
Alert the neighbourhood to the presence of fumes or gas.

3. Methods & Materials

Mix with sand or vermiculite.
Transfer to a closable, labelled salvage container for disposal by an appropriate method.

4. Preventing the occurrence of secondary hazards.

No Special Measures Required

7. Handling and Storage

1. Personal Precautions

<i>Safe Handling</i>	Ensure there is sufficient ventilation of the area. P240: Ground/bond container and receiving equipment. P264: Wash hands thoroughly after handling.
<i>Protection against explosions and fires</i>	P241: Use explosion-proof electrical/ventilating/lighting/. equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P362: Take off contaminated clothing and wash before reuse.

2. Conditions for safe storage, including any incompatibilities

<i>Managing Storage Risks</i>	Store in cool, well ventilated area. Keep away from sources of ignition. Keep container tightly closed.
<i>Storage Controls</i>	P403 + P235: Store in a well-ventilated place. Keep cool.
<i>Maintaining Integrity</i>	P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P235: Keep cool. Store away from oxidising agents
<i>Other advice</i>	no further information available

3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

8. Exposure Controls/Personal Protection

1. Control Parameters

No Data Available

2. Exposure Controls

<i>General protective and hygiene measures</i>	P280: Wear protective gloves/protective clothing/eye protection/face protection. Wash hands during breaks and at the end of handling the material Immediately remove any contaminated clothing
<i>Engineering measures</i>	Ensure there is sufficient ventilation of the area.
<i>Eye / Face Protection</i>	Safety Glasses with side-shields.
<i>Hand protection</i>	Appropriate protective gloves.
<i>Respiratory protection</i>	Use breathing protection with high concentrations
<i>Skin protection</i>	Handle with appropriate gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry hands. Protective clothing.
<i>Other personal protection advice</i>	no data

9. Physical and Chemical Properties

1. Physical and Chemical Properties

Appearance	liquid
Odour	No Data Available
Odour threshold	No Data Available
PH	No Data Available
Melting point / Freezing point	No Data Available
Initial boiling point and boiling range	78-80°
Flash point	-10°
Evaporation rate	No Data Available
Flammability(solid,gas)	No Data Available
Upper/lower flammability or explosive limits	No Data Available
Vapour pressure	No Data Available
Vapour density	No Data Available
Relative density	0.86
Solubility(ies):	No Data Available
Partition coefficient: n-octanol/water	No Data Available
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

2. Other Information

No additional information available

10. Stability and Reactivity

1. Reactivity

no unusual reactivity

2. Stability

Stable under normal conditions.

3. Possibility of Hazardous Reactions

no hazardous reactions known

4. Conditions to Avoid

Extremes of temperature and direct sunlight.
Heat, flames and sparks.

5. Incompatible Materials

Bases.
Oxidising agents.

6. Hazardous Decomposition Products

In combustion emits toxic fumes.

11. Toxicology information

1. Information

<i>Acute Toxicity</i>	Oral LD50 For MeTHF: Rat - female - >300 mg/kg Inhalation LC50 For MeTHF: Rat - 4 h - 6000 ppm Dermal LD50 Rat - male and female - >2000 mg/kg
<i>Skin corrosion/irritation</i>	strong corrosive effect on skin and mucous membranes
<i>Serious eye Damage/irritation</i>	strong caustic effect.
<i>Respiratory or skin sensitisation</i>	No sensitizing effect known
<i>Germ Cell mutagenicity</i>	

MeTHF: Reverse mutation assay S. typhimurium Result: negative

<i>Carcinogenicity</i>	not known
<i>Reproductive toxicity</i>	not known
<i>STOT-single exposure</i>	not known
<i>STOT-repeated exposure</i>	not known
<i>Aspiration hazard</i>	not known

2. Additional

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH
swallowing will lead to a strong caustic effect on mouth and throat and the danger of perforation of oesophagus and stomach.

12. Ecological Information

1. Toxicity

For MeTHF: Toxicity to fish: semi-static test LC50 - *Oncorhynchus mykiss* (rainbow trout) - > 100 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates: semi-static test EC50 - *Daphnia magna* (Water flea) - > 139 mg/l - 48 h
Toxicity to algae static test LC50 - *Desmodesmus subspicatus* (green algae) - > 104 mg/l - 72 h

2. Persistence and degradability

not known

3. Bio-Accumulative Potential

not known

4. Mobility and Soil

not known

5. Results of PBT & vPvB assessment

not known

6. Other adverse effects

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

13. Disposal Considerations

1. Waste Treatment Methods

Disposal Operations

Disposal of Packaging Disposal must be made according to official regulations.

14. Transport Information

Air (ICAO)

1. UN Number: 2536
2. Shipping Name: Methyltetrahydrofuran
3. Transport hazard class(es): : 3 Sub Class :




4. Packing group: II
5. Environmental hazards:
6. Special Precautions for user:
7. Transport in bulk:

Road (ADR)

1. **UN Number:** 2536
 2. **Shipping Name:** METHYLTETRAHYDROFURAN
 3. **Transport hazard class(es):** : 3 Sub Class :
- 
4. **Packing group:** II
 5. **Environmental hazards:**
 6. **Special Precautions for user:**
 7. **Transport in bulk:**

Sea (IMDG)

1. **UN Number:** 2536
 2. **Shipping Name:** Methyltetrahydrofuran
 3. **Transport hazard class(es):** : 3 Sub Class :
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4. **Packing group:** II
 5. **Environmental hazards:**
 6. **Special Precautions for user:**
 7. **Transport in bulk:** IBCINS: IBC02

TANKPROV: TP1

15. Safety, health, environmental and national regulations

1. Safety, health, environmental and national regulations:

product is not subject to any additional regulations or provisions

2. Safety Assessment

No Chemical Safety Assessment

16. Other Information

1. Other Information:

ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)
RID:Reglement International concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association
ICAO:International Civil Aviation Organization
ICAO-TI: Technical Instructions by the ICAO
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS:Chemical Abstracts Service

3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.