

Safety Data Sheet

according to UK REACH Regulation

Propargyl amine

Revision date: 15.10.2018

Product code: PEG2755

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Propargyl amine

Further trade names

Propargylamine, 3-Amino-1-propyne

Prop-2-yn-1-amine

3-Amino-1-propyne

Prop-2-ynylamine

CAS No: 2450-71-7

EC No: 219-513-8

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Laboratory chemical. Manufacture of the substance.

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name: Iris Biotech GmbH

Street: Adalbert-Zoellner-Straße 1

Place: D-95615 Marktredwitz, Germany

Post-office box: 568

D-95605 Marktredwitz, Germany

Telephone: +49 9231 97121 0

Telefax: +49 9231 97121 99

e-mail: info@iris-biotech.de

Contact person: Compliance Department

Telephone: +49 9231 97121 0

e-mail: sds@iris-biotech.de

Internet: www.iris-biotech.de

Responsible Department: Only available during office hours.

1.4. Emergency telephone number: +49 (0)89 19240 (POISON CENTER Munich: 24 h)**Further Information**

Emergency telephone: 24 h

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****GB CLP Regulation**

Hazard categories:

Flammable liquid: Flam. Liq. 2

Acute toxicity: Acute Tox. 2

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1B

Hazard Statements:

Highly flammable liquid and vapour.

Fatal in contact with skin.

Harmful if swallowed.

Causes severe skin burns and eye damage.

2.2. Label elements**GB CLP Regulation****Signal word:** Danger

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Pictograms:



Hazard statements

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or 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.
P310	Immediately call a POISON CENTER/doctor.

Additional advice on labelling

Warning - substance not yet tested completely.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

Prop-2-yn-1-amine

Sum formula:	C ₃ H ₅ N
Molecular weight:	55,08 g/mol

Hazardous components

CAS No	Chemical name	Quantity
	EC No	Index No
	REACH No	
	GHS Classification	
2450-71-7	Propargyl amine	< = 100 %
	219-513-8	
	Flam. Liq. 2, Acute Tox. 2, Acute Tox. 4, Skin Corr. 1B; H225 H310 H302 H314	

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
2450-71-7	219-513-8	Propargyl amine	< = 100 %
		dermal: LD50 = 66 mg/kg; oral: LD50 = 780 mg/kg	

SECTION 4: First aid measures

4.1. Description of first aid measures

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General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. Medical treatment necessary. Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin

Take off immediately all contaminated clothing and wash it before reuse. Call a physician immediately. After contact with skin, wash immediately with plenty of water and soap. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person or a person with cramps. Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings. Water spray. alcohol resistant foam. Dry extinguishing powder. Carbon dioxide (CO₂). Sand.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Non-flammable. Thermal decomposition can lead to the escape of irritating gases and vapours. In case of fire may be liberated: Carbon dioxide (CO₂). Carbon monoxide (CO). Nitrogen oxides (NO_x).

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Usual measures for fire prevention.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General measures**

Remove all sources of ignition.
Provide adequate ventilation. Avoid breathing dust/fume/gas/mist/vapours/spray.
Avoid contact with skin, eyes and clothes.
Wear personal protection equipment.
In case of fire: Evacuate area.

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6.2. Environmental precautions

- Do not allow to enter into soil/subsoil.
- Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up**Other information**

- Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Take up mechanically, placing in appropriate containers for disposal.
- Clear contaminated areas thoroughly.

6.4. Reference to other sections

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13 Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

- If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation.
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Avoid contact with skin, eyes and clothes.
- Keep away from sources of ignition - No smoking.
- Take action to prevent static discharges.

Advice on protection against fire and explosion

- Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.
- Vapours can form explosive mixtures with air.

Usual measures for fire prevention.

Advice on general occupational hygiene

- Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.
- Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Avoid contact with skin, eyes and clothes. Provide adequate ventilation. When using do not eat, drink or smoke. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

- Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only.
- Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed in a cool, well-ventilated place.
- Handle and store contents under inert gas. Protect from moisture. Product is hygroscopic. Photosensitive.
- storage temperature: 2-8°C

Hints on joint storage

- Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

Further information on storage conditions

- Reacts with : Carbon dioxide (CO₂).

7.3. Specific end use(s)

- Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

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8.1. Control parameters

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls



Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles. Wear eye/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Wear suitable gloves.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing. Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Environmental exposure controls

Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	yellow/ beige
Odour:	No data available

Changes in the physical state

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	83 °C
Sublimation point:	not determined
Softening point:	not determined
Flash point:	6 °C

Flammability

Solid/liquid:	not applicable
Gas:	not applicable

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Explosive properties

No data available

Lower explosion limits:

not determined

Upper explosion limits:

not determined

Self-ignition temperature

Solid:

not applicable

Gas:

not applicable

Decomposition temperature:

not determined

Oxidizing properties

Not oxidising.

pH-Value:

not determined

Water solubility:

easily soluble

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

not determined

Vapour pressure:

not determined

Density (at 25 °C):

0,86 g/cm³

Bulk density:

not applicable

Relative vapour density:

not determined

9.2. Other information**Information with regard to physical hazard classes**

Sustaining combustion:

Sustaining combustion

Other safety characteristics

Solid content:

not determined

Evaporation rate:

not determined

Further Information**SECTION 10: Stability and reactivity****10.1. Reactivity**

Highly flammable.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air. Protect from moisture.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Protect from sunlight.

10.5. Incompatible materialsOxidizing agents, strong.
acid.

Acid halogen.

acid anhydride

Carbon dioxide (CO₂).

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10.6. Hazardous decomposition products

Thermal decomposition can lead to the escape of irritating gases and vapours.

In case of fire may be liberated: Carbon dioxide (CO₂). Carbon monoxide (CO). Nitrogen oxides (NO_x).

Further information

In case of fire: See chapter 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Toxicokinetics, metabolism and distribution

No data available

Acute toxicity

Fatal in contact with skin.

Harmful if swallowed.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
2450-71-7	Propargyl amine				
	oral	LD50 780 mg/kg	Rat		
	dermal	LD50 66 mg/kg	Rabbit		

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

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.

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Specific effects in experiment on an animal

No data available

Practical experience

No data available

11.2. Information on other hazards

Other information

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Cough, Dyspnoea, Headache. Nausea.

Further information

RTECS: UK5250000

Caution! To the best of our knowledge the toxicological properties of this material have not been thoroughly investigated.

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SECTION 12: Ecological information

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.7. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

Warning - substance not yet tested completely.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation. Dispose of waste according to applicable legislation.

Consult the appropriate local waste disposal expert about waste disposal.

Handle contaminated packages in the same way as the substance itself.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:

UN3286

14.2. UN proper shipping name:

FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. (Prop-2-ynylamine)

14.3. Transport hazard class(es):

3

14.4. Packing group:

II

Hazard label:

3+6.1+8



Classification code:

FTC

Special Provisions:

274

Limited quantity:

1 L

Transport category:

2

Hazard No:

368

Tunnel restriction code:

D/E

Other applicable information (land transport)

E2

Inland waterways transport (ADN)

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14.1. UN number: UN3286
14.2. UN proper shipping name: FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. (Prop-2-ynylamine)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3+6.1+8



Classification code: FTC
 Special Provisions: 274 802
 Limited quantity: 1 L

Other applicable information (inland waterways transport)
 E2

Marine transport (IMDG)

14.1. UN number: UN3286
14.2. UN proper shipping name: FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. (Prop-2-ynylamine)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3+6.1/8



Marine pollutant: no
 Special Provisions: 274
 Limited quantity: 1 L
 EmS: F-E, S-C

Other applicable information (marine transport)
 E2

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN3286
14.2. UN proper shipping name: FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. (Prop-2-ynylamine)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3+6.1 8



Limited quantity Passenger: 0.5 L
 IATA-packing instructions - Passenger: 352
 IATA-max. quantity - Passenger: 1 L
 IATA-packing instructions - Cargo: 363
 IATA-max. quantity - Cargo: 5 L

Other applicable information (air transport)
 E2
 : Y340

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

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14.6. Special precautions for user

Warning: Combustible liquid. Toxic. strongly corrosive.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3

2004/42/EC (VOC):	100 % (860 g/l)
Information according to 2012/18/EU (SEVESO III):	H2 ACUTE TOXIC
Additional information:	P5c

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Water hazard class (D):	3 - highly hazardous to water
Skin resorption/Sensitization:	Permeates easily through outer skin and causes poisoning.

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information**Abbreviations and acronyms**

ADR: Accord européen sur le transport 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 Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. Warning - substance not yet tested completely. The product is intended for research, analysis and scientific education.

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The receiver of our product is singularly responsible for adhering to existing laws and regulations.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.