

1 Identification

Product identifier

Product name: Propargylamine

Stock number: H53495

CAS Number:

2450-71-7

EC number:

219-513-8

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

Identified use: SU24 Scientific research and development

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfa Aesar

Thermo Fisher Scientific Chemicals, Inc.

30 Bond Street

Ward Hill, MA 01835-8099

Tel: 800-343-0660

Fax: 800-322-4757

Email: tech@alfa.com

www.alfa.com

Information Department: Health, Safety and Environmental Department

Emergency telephone number:

During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789.

2 Hazard(s) identification

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)



GHS02 Flame

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



GHS06 Skull and crossbones

Acute Tox. 2 H310 Fatal in contact with skin.



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Hazards not otherwise classified No information known.

Label elements

GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

Hazard pictograms



GHS02 GHS05 GHS06

Signal word

Danger

Hazard statements

H225 Highly flammable liquid and vapor.

H302 Harmful if swallowed.

H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P303+P361+P353 If on skin (or hair): 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.

P361 Take off immediately all contaminated clothing.

P405 Store locked up.

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

WHMIS classification

B2 - Flammable liquid

D1A - Very toxic material causing immediate and serious toxic effects

D2B - Toxic material causing other toxic effects

E - Corrosive material



Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

HEALTH 3 Health (acute effects) = 3

FIRE 3 Flammability = 3

REACTIVITY 1 Physical Hazard = 1

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

Product name: Propargylamine	
vPvB: Not applicable.	(Contd. of page 1)
3 Composition/information on ingredients Chemical characterization: Substances CAS# Description: 2450-71-7 Propargylamine Identification number(s): EC number: 219-513-8	
4 First-aid measures Description of first aid measures General information Immediately remove any clothing soiled by the product. In case of irregular breathing or respiratory arrest provide artificial respiration. After inhalation Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice. After skin contact Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice. After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor. After swallowing Seek medical treatment. Information for doctor Most important symptoms and effects, both acute and delayed Causes severe skin burns. Causes serious eye damage. Indication of any immediate medical attention and special treatment needed No further relevant information available.	
5 Fire-fighting measures Extinguishing media Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture If this product is involved in a fire, the following can be released: Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.	
6 Accidental release measures Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Keep away from ignition sources Environmental precautions: Do not allow product to reach sewage system or any water course. Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent. Dispose of contaminated material as waste according to section 13. Ensure adequate ventilation. Prevention of secondary hazards: Keep away from ignition sources. 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 disposal information.	
7 Handling and storage Handling Precautions for safe handling Handle under dry protective gas. Keep container tightly sealed. Ensure good ventilation at the workplace. Information about protection against explosions and fires: Protect against electrostatic charges. Fumes can combine with air to form an explosive mixture. Keep ignition sources away. Conditions for safe storage, including any incompatibilities Storage Requirements to be met by storerooms and receptacles: Refrigerate Information about storage in one common storage facility: Store away from air. Protect from heat. Do not store together with acids. Store away from oxidizing agents. Further information about storage conditions: Store under dry inert gas. This product is air sensitive. Keep container tightly sealed. Refrigerate Specific end use(s) No further relevant information available.	
8 Exposure controls/personal protection Additional information about design of technical systems: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute. Control parameters Components with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.	

Product name: Propargylamine

Additional information: No data

Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Do not inhale dust / smoke / mist.
Avoid contact with the eyes and skin.
Maintain an ergonomically appropriate working environment.
Breathing equipment: Use suitable respirator when high concentrations are present.
Protection of hands:
Impervious gloves
Check protective gloves prior to each use for their proper condition.
The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.
Penetration time of glove material (in minutes) Not determined
Eye protection:
Tightly sealed goggles
Full face protection
Body protection: Protective work clothing.

(Contd. of page 2)

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Liquid
Color:	Colorless to yellow
Odor:	Not determined
Odor threshold:	Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range:	Not determined
Boiling point/Boiling range:	83 °C (181 °F)
Sublimation temperature / start:	Not determined

Flash point: 6 °C (43 °F)

Flammability (solid, gaseous) Not determined.

Ignition temperature: Not determined

Decomposition temperature: Not determined

Auto igniting: Not determined.

Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures is possible.

Explosion limits:

Lower:	Not determined
Upper:	Not determined

Vapor pressure: Not determined

Density at 20 °C (68 °F): 0.86 g/cm³ (7.177 lbs/gal)

Relative density Not determined.

Vapor density Not determined.

Evaporation rate Not determined.

Solubility in / Miscibility with

Water:	Fully miscible
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Partition coefficient (n-octanol/water): Not determined.

Viscosity:

dynamic:	Not determined.
kinematic:	Not determined.

Other information No further relevant information available.

10 Stability and reactivity

Reactivity No information known.

Chemical stability Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications.

Possibility of hazardous reactions Reacts with strong oxidizing agents

Conditions to avoid No further relevant information available.

Incompatible materials:

Acids
Air
Oxidizing agents
Heat

Hazardous decomposition products:

Carbon monoxide and carbon dioxide
Nitrogen oxides

11 Toxicological information

Information on toxicological effects

Acute toxicity:

Harmful if swallowed.
Fatal in contact with skin.
Danger through skin absorption.
Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.
The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.

LD/LC50 values that are relevant for classification:




Oral	LD50	671 mg/kg (rat)
Dermal	LD50	66 mg/kg (rabbit)

Skin irritation or corrosion: Causes severe skin burns.

Eye irritation or corrosion: Causes serious eye damage.

Sensitization: No sensitizing effects known.

(Contd. on page 4)

Product name: Propargylamine	
<div><div>Germ cell mutagenicity: No effects known.</div><div>Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.</div><div>Reproductive toxicity: No effects known.</div><div>Specific target organ system toxicity - repeated exposure: No effects known.</div><div>Specific target organ system toxicity - single exposure: No effects known.</div><div>Aspiration hazard: No effects known.</div><div>Subacute to chronic toxicity: No effects known.</div><div>Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.</div></div>	
(Contd. of page 3)	
12 Ecological information	
<div><div>Toxicity</div><div>Aquatic toxicity: No further relevant information available.</div><div>Persistence and degradability: No further relevant information available.</div><div>Bioaccumulative potential: No further relevant information available.</div><div>Mobility in soil: No further relevant information available.</div><div>Additional ecological information:</div><div>General notes:</div><div>Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.</div><div>Avoid transfer into the environment.</div><div>Results of PBT and vPvB assessment</div><div>PBT: Not applicable.</div><div>vPvB: Not applicable.</div><div>Other adverse effects: No further relevant information available.</div></div>	
13 Disposal considerations	
<div><div>Waste treatment methods</div><div>Recommendation: Consult state, local or national regulations to ensure proper disposal.</div><div>Uncleaned packagings:</div><div>Recommendation: Disposal must be made according to official regulations.</div><div>Recommended cleansing agent: Water, if necessary with cleansing agents.</div></div>	
14 Transport information	
UN-Number DOT, IMDG, IATA	UN3286
UN proper shipping name DOT IMDG, IATA	Flammable liquid, toxic, corrosive, n.o.s. (Propargylamine) FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. (Propargylamine)
Transport hazard class(es) DOT	
<div></div>	
Class Label Class Label IMDG, IATA	3 Flammable liquids. 3+6.1+8 3 (FTC) Flammable liquids 3+6.1+8
<div></div>	
Class Label	3 Flammable liquids. 3+6.1+8
Packing group DOT, IMDG, IATA	II
Environmental hazards:	Not applicable.
Special precautions for user EMS Number:	Warning: Flammable liquids F-E,S-C
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
DOT Marine Pollutant (DOT):	No
UN "Model Regulation":	UN3286, Flammable liquid, toxic, corrosive, n.o.s. (Propargylamine), 3 (6.1+8), II
15 Regulatory information	
<div><div>Safety, health and environmental regulations/legislation specific for the substance or mixture</div><div>GHS label elements: The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)</div><div>Hazard pictograms</div><div></div><div>GHS02 GHS05 GHS06</div><div>Signal word: Danger</div><div>Hazard statements</div><div>H225 Highly flammable liquid and vapor.</div><div>H302 Harmful if swallowed.</div><div>H310 Fatal in contact with skin.</div><div>H314 Causes severe skin burns and eye damage.</div><div>Precautionary statements</div><div>P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.</div><div>P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</div><div>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</div></div>	
(Contd. on page 5) USA	

Product name: **Propargylamine**

P361
P405
P501

Take off immediately all contaminated clothing.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. of page 4)

National regulations
All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.
All components of this product are listed on the Canadian Domestic Substances List (DSL).
SARA Section 313 (specific toxic chemical listings) Substance is not listed.
California Proposition 65
Prop 65 - Chemicals known to cause cancer Substance is not listed.
Prop 65 - Developmental toxicity Substance is not listed.
Prop 65 - Developmental toxicity, female Substance is not listed.
Prop 65 - Developmental toxicity, male Substance is not listed.
Information about limitation of use: For use only by technically qualified individuals.
Other regulations, limitations and prohibitive regulations
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed.
The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.
Substance is not listed.
Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed.
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information
Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information 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.

Department issuing SDS: Global Marketing Department
Date of preparation / last revision 11/23/2015 / -
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
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
vPvB: very Persistent and very Bioaccumulative
ACGIH: American Conference of Governmental Industrial Hygienists (USA)
OSHA: Occupational Safety and Health Administration (USA)
NTP: National Toxicology Program (USA)
IARC: International Agency for Research on Cancer
EPA: Environmental Protection Agency (USA)

USA