

Safety Data Sheet
According to Regulation (EC) No 1907/2006, Annex II,
Amended by COMMISSION REGULATION (EU) 2015/830,
According to REGULATION (EC) No 1272/2008

Tert-butylamine

Version 1.0

Issue date: 25-11-2019

Revision date: 25-11-2019

SDS Record Number: CSSS-TCO-010-133076

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

1.1 Product identifier:

Identification on the label/Trade name: Tert-butylamine
Additional identification: Not available.
Identification of the product: CAS#75-64-9 EC#200-888-1
Index Number: Not available.
REACH registration No.: 01-2119457270-45-xxxx

1.2 Relevant identified uses of the substance or mixture and uses advised against:

1.2.1 Identified uses:

Intermediate
PC 19: Intermediate
SU 0: Other: SU3
SU 8: Manufacture of bulk, large scale chemicals (including petroleum products)
SU 9: Manufacture of fine chemicals

1.2.2 Uses advised against:

No uses advised against are identified.

1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative): Chemical Inspection & Regulation Service Limited
Supplier(Manufacturer): ZIBO LUHUA HONGJIN NEW MATERIAL CO.,LTD.
Address: No.3 FENGBEI ROAD, YIXI, ZHANGDIAN DISTRICT, ZIBO CITY, SHANDONG PROVINCE.
Contact person(E-mail): Jessie.liu@luhuachem.com
Telephone: +86-13869329819
Fax: +86-533 5201888

1.4 Emergency telephone Number:

+353 (1) 477 3710 (Only available during office hours (9:00a.m.-17:30p.m.))

Available outside office hours? YES NO

Section 2 Hazards Identification

2.1 Classification of the substance or mixture:

2.1.1 Classification:

The substance is classified as following according to REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Flam. Liquid. 2	H225
Acute Tox. 4	H302
Acute Tox. 3	H331
Skin Corr. 1A	H314

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Eye Damage 1	H318
Aquatic Chronic 3	H412

For full text of H- phrases: see section 2.2.

2.2 Label elements:

Hazard Pictograms:



Signal Word(S):

Danger

Hazard Statement:

H225: Highly flammable liquid and vapour.

H302: Harmful if swallowed.

H331: Toxic if inhaled.

H314: Causes severe skin burns and eye damage.

H412: Harmful to aquatic life with long lasting effects.

Precautionary statement:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233: Keep container tightly closed.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P260: Do not breathe dust/fume/ gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do not induce vomiting.

P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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.

P311: Call a poison center/doctor.

P330: Rinse mouth.

P363: Wash contaminated clothing before reuse.

P370 + P378: In case of fire: Use dry chemical, alcohol foam, carbon dioxide or water spray to extinguish.

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

P403 + P235: Store in a well-ventilated place. Keep cool.

P405: Store locked up.

P501: Dispose of contents/container in accordance with local regulations.

2.3 Other hazards:

The substance is not PBT / vPvB.

Section 3 Composition/information on ingredients

Substance/Mixture:

Substance

Ingredient(s):

Product name: Tert-butylamine

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Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Tert-butylamine	01-2119457270-45-xxxx	75-64-9	200-888-1	>99.5%

Section 4 First aid measures

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of inhalation:

Keep patient calm, remove to fresh air, seek medical attention. Immediately inhale corticosteroid dose aerosol.

4.1.2 In case of skin contact:

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

4.1.3 In case of eyes contact:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

4.1.4 In case of ingestion:

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

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

Harmful if swallowed. Toxic if inhaled. Causes severe skin burns and eye damage.

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

If skin irritation or rash occurs, get medical advice/attention.

Section 5 Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Water spray, dry powder, foam

Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released: nitrogen oxides, carbon oxides.

5.3 Advice for firefighters:

Self-contained breathing apparatus with full-face mask and full protective clothing (standard wear).

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel:

Eliminate all sources of ignition. Wear appropriate protective clothing. Avoid breathing vapours. Keep unnecessary people away; isolate hazard area and deny entry. Consider need for evacuation. Stay up wind and keep out of low areas where vapour may accumulate and ignite.

6.1.2 For emergency responders:

Wear an appropriate NIOSH/MSHA approved respirator if vapour is generated.

6.2 Environmental Precautions:

Try to prevent the material from entering drains or water courses. Advise Authorities if spillage has entered water course or sewer or has contaminated soil or vegetation.

6.3 Methods and material for

Containment and Cleaning up:

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

6.4 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 information on disposal.

Section 7 Handling and storage

7.1 Precautions for safe handling:

7.1.1 Protective measures:

Store in tightly closed containers in cool, dry, isolated, well-ventilated area. Avoid inhaling vapour. Avoid contact with eyes, skin and clothing. Suitable equipment for dealing with fires, spills and leaks must be readily available. Earth all equipment. Use explosion protected electrical equipment and lighting. Do not smoke eat or drink in areas of use and storage. Use closed-system transfers wherever possible. Earth (ground) lines and equipment used during transfer to reduce possibility of static spark initiated fire or explosion

7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a cool, well-ventilated place. Storage temperature: ≤ 35 °C. Storage duration: 24 Months.

7.3 Specific end use(s):

Not applicable.

Section 8 Exposure Controls/Personal Protection

8.1 Control parameters:

8.1.1 Occupational exposure limits:

Tert-butylamine(CAS#75-64-9):TWA: 5ppm, 15 mg/m3.(Denmark)

8.1.2 Additional exposure limits under the conditions of use:

Not available.

8.1.3 DNEL/DMEL and PNEC-Values:

Hazard for aquatic organisms	Freshwater	PNEC= 0.016 mg/L
Hazard for aquatic organisms	Marine water	PNEC= 0.002 mg/L
Hazard for aquatic organisms	STP	PNEC= 72 mg/L
Hazard for aquatic organisms	Sediment (freshwater)	PNEC= 39 mg/kg sediment dw
Hazard for aquatic organisms	Sediment (marine water)	PNEC= 3.9 mg/kg sediment dw
Hazard for terrestrial organisms	Soil	PNEC= 7.76 mg/kg soil dw

8.2 Exposure controls:

8.2.1 Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection:

Tightly fitting safety goggles (cage goggles) (e.g. EN 166) and face shield.

Hand protection:

Chemical resistant protective gloves (EN 374)

Suitable materials short-term contact and/or splashes (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN 374)

butyl rubber (butyl) - 0.7 mm coating thickness

nitrile rubber (NBR) - 0.4 mm coating thickness

polyvinylchloride (PVC) - 0.7 mm coating thickness

chloroprene rubber (CR) - 0.5 mm coating thickness

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. Gas filter for gases/vapours of organic compounds (boiling point < 65 °C, f.e. EN 14387 Type AX)

Thermal hazards:

Wear suitable protective clothing to prevent heat.

8.2.3 Environmental exposure controls:

Avoid discharge into the environment. According to local regulations, Federal and

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance:	Liquid
Colour:	Colourless
Odour:	Pungent odor
Odour threshold:	Not available
pH:	Not available
Melting point/range (°C):	-68 - -67.5 °C
Boiling point/range (°C):	45.2 °C
Flash point (°C):	-38 °C
Evaporation rate:	Not available
Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Not applicable
Ignition temperature (°C):	Not available
Upper/lower explosive limits:	Not available
Vapour pressure (25°C):	496 hPa
Vapour density:	Not available
Relative Density:	0.696,24 °C
Bulk density (kg/m³):	Not available
Water solubility (g/l):	1 000 g/L,25 °C
n-Octanol/Water (log Po/w):	0.4 (25°C)
Auto-ignition temperature:	380 °C
Decomposition temperature:	Not available
Viscosity, dynamic (mPa.s):	Not available
Explosive properties:	Not available
Oxidising properties:	Not available
Molecular Formula:	C4H11N
Molecular Weight:	73,14

9.2. Other information:

Fat solubility(solvent-oil to be specified)	Not available
etc:	
Surface tension:	Not available
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available

Section 10 Stability and reactivity

10.1 Reactivity:	The substance is stable under normal storage and handling conditions.
10.2 Chemical stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
10.3 Possibility of hazardous reactions:	Strong exothermic reaction with acids.
10.4 Conditions to avoid:	Incompatible materials. Avoid all sources of ignition: heat, sparks, open flame.
10.5 Incompatible materials:	Oxidizing agents, acids.
10.6 Hazardous decomposition products:	Carbon oxides, nitrogen oxides

Section 11 Toxicological information

11.1 Information on toxicological effects:

Acute toxicity:	
LD50(Oral, Rat):	ca. 464 mg/kg bw
LD50(Dermal, Rabbit):	Not available
LC50(Inhalation, Rat):	3.8 mg/L,4H
Skin corrosion/Irritation:	Causes severe skin burns and eye damage.
Serious eye damage/Irritation:	Causes serious eye damage.
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

Section 12 Ecological information

12.1 Toxicity:

Acute (short-term) toxicity:

LC50(96h, Fish):	28 mg/L
LC50(48h, Crustacea):	Not available
EC50(72h, Algae/aquatic plants):	Not available
Chronic (long-term) toxicity:	
NOEC(Fish):	Not available
NOEC(Crustacea):	Not available
EC50(Algae/aquatic plants):	Not available

12.2 Persistence and degradability: Under test conditions no biodegradation observed

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: log Koc: 1.56

12.5 Results of PBT and vPvB assessment: The substance is not PBT / vPvB.

12.6 Other adverse effects: Harmful to aquatic life with long lasting effects.

Section 13 Disposal considerations

13.1 Waste treatment methods: Dispose of in accordance with all applicable local and national regulations. Use recovery/recycling where feasible, otherwise incineration is the recommended method of disposal. Empty containers may contain hazardous residues. Do not cut, puncture or weld on or near to the container. Labels should not be removed from containers until they have been cleaned. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers.

Section 14 Transport information

	Land transport (ADR/RID)	Inland waterways (ADN)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN number	UN3286	UN3286	UN3286	UN3286
UN Proper shipping name	AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (Tert-butylamine)	AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (Tert-butylamine)	AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (Tert-butylamine)	AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (Tert-butylamine)
Transport hazard Class(es)	3+6.1+8	3+6.1+8	3+6.1+8	3+6.1+8
Packing group	II	II	II	II
Environmental hazards	No	No	No	No
Special precautions for user	See section 2.2	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of Marpol and the IBC Code	-	-	-	-

Section 15 Regulatory information

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

Relevant information regarding authorization: Not applicable.

Relevant information regarding restriction: Not applicable.

Other EU regulations: Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

Other National regulations: Not applicable

15.2 Chemical safety assessment

YES NO

Section 16 Other information

16.1 Indication of changes:

Version 1.0 Amended by (EU) 2015/830

16.2 Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation for rail International transportation of Dangerous goods

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: Code international maritime dangerous goods code

ICAO: International Civil Aviation Organization

IATA: International Air Transport Association

LC50: median lethal concentration

EC50: The effective concentration of substance that causes 50% of the maximum response.

NOEC: No Observed Effect Concentration

DNEL: derived no-effect level

PNEC: predicted no-effect concentration

16.3 Key literature references and sources for data

ECHA Registered substances data

16.4 Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to Regulation (EC) No. 1272/2008		Classification procedure
Flam. Liquid. 2	H225	On basis of test data
Acute Tox. 4	H302	On basis of test data
Acute Tox. 3	H331	On basis of test data

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Skin Corr. 1A	H314	On basis of test data
Eye Damage 1	H318	On basis of test data
Aquatic Chronic 3	H412	On basis of test data

16.5 Relevant H-statements (number and full text):

- H225: Highly flammable liquid and vapour.
- H302: Harmful if swallowed.
- H331: Toxic if inhaled.
- H314: Causes severe skin burns and eye damage.
- H318: Causes serious eye damage.
- H412: Harmful to aquatic life with long lasting effects.

16.6 Training instructions:

Not applicable.

16.7 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.8 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment 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 Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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