SAFETY DATA SHEETS

According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS) - Sixth revised edition

> Version: 1.0 Creation Date: Aug 17, 2017

> Revision Date: Aug 17, 2017

1. Identification

1.1 GHS Product identifier

Product name tributylalumane

1.2 Other means of identification

Product number -Other names EINECS 214-240-0

1.3 Recommended use of the chemical and restrictions on use

Identified usesFor industry use only.Uses advised againstno data available

- 2. Hazard identification
- 2.1 Classification of the substance or mixture

Pyrophoric liquids, Category 1

Substances and mixtures, which in contact with water, emit flammable gases, Category 1

Skin corrosion, Category 1B

2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word	Danger		
Hazard statement(s)	H250 Catches fire spontaneously if exposed to air		
	H260 In contact with water releases flammable gases which may ignite spontaneously		
	H314 Causes severe skin burns and eye damage		
Precautionary statement(s)			
Prevention	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.		
	P222 Do not allow contact with air.		
	P231+P232 Handle and store contents under inert gas/ Protect from moisture.		
	P233 Keep container tightly closed.		
	P280 Wear protective gloves/protective clothing/eye protection/face protection.		
	P223 Do not allow contact with water.		
	P260 Do not breathe dust/fume/gas/mist/vapours/spray.		
	P264 Wash thoroughly after handling.		
Response	P302+P334 IF ON SKIN: Immerse in cool water [or wrap in wet bandages].		
	P370+P378 In case of fire: Use to extinguish.		
	P302+P335+P334 IF ON SKIN: Brush off loose particles from skin. Immerse in cool water [or wrap in wet bandages].		
	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 [or shower].		

	P363 Wash contaminated clothing before reuse.
	P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P310 Immediately call a POISON CENTER/doctor/…
	P321 Specific treatment (see on this label).
Storage	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P402+P404 Store in a dry place. Store in a closed container.
	P405 Store locked up.
Disposal	P501 Dispose of contents/container to

2.3 Other hazards which do not result in classification

none

3. Composition/information on ingredients

3.1 Substances

Chemical name	Common names and	CAS	EC	Concentration
	synonyms	number	number	Concentration
tributylalumane	tributylalumane	1116-70-7	none	100%

4. First-aid measures

4.1 Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms/effects, acute and delayed

no data available

4.3 Indication of immediate medical attention and special treatment needed, if necessary

no data available

- 5. Fire-fighting measures
- 5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

no data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

- 6. Accidental release measures
- 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

- 7. Handling and storage
- 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

- 8. Exposure controls/personal protection
- 8.1 Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2 Appropriate engineering controls

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

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye

protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique(without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

no data available

9. Physical and chemical properties

Colourno data availableOdourno data availableMelting point/ freezing-26.7°C (Freezing point)point-26.7°C (Freezing point)
Melting point/ freezing -26.7°C (Freezing point) point
point
•
Boiling point or initial no data available
boiling point and
boiling range
Flammability no data available
Lower and upper no data available
explosion limit /
flammability limit
Flash point no data available
Auto-ignition no data available
temperature
Decomposition no data available
temperature
pH no data available
Kinematic viscosity no data available
Solubility no data available

Partition coefficient n- no data available octanol/water (log value) Vapour pressure no data available Density and/or relative no data available density Relative vapour density no data available Particle characteristics no data available

- 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

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

no data available

11. Toxicological information

Acute toxicity

- · Oral: no data available
- · Inhalation: no data available
- · Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation no data available Respiratory or skin sensitization no data available Germ cell mutagenicity no data available Carcinogenicity no data available Reproductive toxicity no data available STOT-single exposure no data available STOT-repeated exposure no data available

Aspiration hazard

no data available

12. Ecological information

12.1 Toxicity

- · Toxicity to fish: no data available
- · Toxicity to daphnia and other aquatic invertebrates: no data available
- · Toxicity to algae: no data available
- · Toxicity to microorganisms: 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 Other adverse effects

no data available

13. Disposal considerations

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. Transport information

14.1 UN Number

ADR/RID: UN3051 IMDG: UN3051 IATA: UN3051 14.2 UN Proper Shipping Name ADR/RID: unknown IMDG: unknown IATA: unknown 14.3 Transport hazard class(es) ADR/RID: 4.2 IMDG: 4.2 IATA: 4.2 14.4 Packing group, if applicable ADR/RID: unknown IMDG: unknown IATA: unknown

14.5 Environmental hazards

ADR/RID: no

IMDG: no

IATA: no

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

- 15. Regulatory information
- 15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
tributylalumane	tributylalumane	1116-70-7	none
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory	Listed.		
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Listed.
Vietnam National Cl	Not Listed.		
Chinese Chemical Ir (China IECSC)	Listed.		

16. Other information

Information on revision

Creation Date	Aug 17, 2017
Revision Date	Aug 17, 2017

Abbreviations and acronyms

· CAS: Chemical Abstracts Service

- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- · IMDG: International Maritime Dangerous Goods
- · IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- · LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

- IPCS The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
- HSDB Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- IARC International Agency for Research on Cancer, website: http://www.iarc.fr/
- eChemPortal The Global Portal to Information on Chemical Substances by OECD, website:
 - http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
- CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
- ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
- ERG Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
- Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp
- · ECHA European Chemicals Agency, website: https://echa.europa.eu/

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate

safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.