1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses Laboratory chemicals, Manufacture of substances **HAZARDS IDENTIFICATION** 2. 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP] Gases under pressure (Liquefied gas) Skin corrosion (Category 1B) Classification according to EU Directives 67/548/EEC or 1999/45/EC Spontaneously flammable in air. Causes burns. 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 [CLP] Pictogram Signal word Danger Hazard statement(s) H280 Contains gas under pressure; may explode if heated. H314 Causes severe skin burns and eye damage. Precautionary statement(s) P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P305 + P351 + P338IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. P310 P410 + P403Protect from sunlight. Store in a well-ventilated place. Supplemental Hazard none Statements According to European Directive 67/548/EEC as amended. Hazard symbol(s) R-phrase(s) R17 Spontaneously flammable in air. R34 Causes burns. S-phrase(s) Keep container tightly closed. Do not breathe gas/fumes/vapour/spray. S23 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. S36/37/39 In case of fire, use fire-fighting equipment on basis class D. S43 In case of accident or if you feel unwell, seek medical advice immediately S45 (show the label where possible). 2.3 Other hazards - none 3. **COMPOSITION/INFORMATION ON INGREDIENTS** 3.1 Substances C3H9B Formula Molecular Weight 55,91 g/mol Concentration Component **Trime thylborane** CAS-No. 593-90-8 EC-No. 209-816-3 4. FIRST AID MEASURES 4.1 **Description of first aid measures** General advice Consult a physician. Show this safety data sheet to the doctor in attendance. If inhale d If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. In case of skin contact Take off contaminated clothing and shoes immediately. 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 Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. Most important symptoms and effects, both acute and delayed 4.2 Nausea, Headache, Vomiting, Cough, chest pain, Difficulty in breathing 4.3 Indication of immediate medical attention and special treatment needed 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** Special hazards arising from the substance or mixture Carbon oxides, Borane/boron oxides 5.3 **Precautions for fire-fighters** Wear self contained breathing apparatus for fire fighting if necessary. **5.4 Further information** no data available **6.** ACCIDENTAL RELEASE MEASURES 6.1 Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. **6.2 Environmental precautions** Do not let product enter drains. 6.3 Methods and materials for containment and cleaning up Clean up promptly by sweeping or vacuum. **6.4** Reference to other sections For disposal see section 13. 7. HANDLING AND STORAGE 7.1 **Precautions for safe handling** Avoid inhalation of vapour or mist. Normal measures for preventive fire protection. 7.2 Conditions for safe storage, including any incompatibilities Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Contents under pressure. 7.3 Specific end uses no data available 8. EXPOSURE CONTROLS/PERSONAL PROTECTION 8.1 **Control parameters** Components with workplace control parameters 8.2 **Exposure controls Appropriate engineering controls** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Personal protective equipment Eye/face protection Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Skin protection 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. **Body Protection** Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. **Respiratory protection** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). 9. PHYSICAL AND CHEMICAL PROPERTIES 9.1 Information on basic physical and chemical properties Appearance Form: gaseous a) Odour no data available b) Odour Threshold no data available no data available d) рН Melting/freezing point Melting point/range: -161,5 °C - lit. e) Initial boiling point and -20,2 °C - lit. f) boiling range no data available Flash point Evaporation rate no data available h) i) Flammability (solid, gas) no data available Upper/lower no data available j) flammability or explosive limits no data available Vapour pressure k) Vapour density no data available 1) m) Relative density no data available Water solubility no data available n) Partition coefficient: nno data available octanol/water Autoignition no data available temperature Decomposition no data available temperature Viscosity no data available r) no data available Explosive properties S) Oxidizing properties no data available t) 9.2 Other safety information no data available **10.** STABILITY AND REACTIVITY 10.1 Reactivity no data available 10.2 **Chemical stability** no data available Possibility of hazardous reactions 10.3 no data available 10.4 Conditions to avoid no data available 10.5 **Incompatible materials** Water, Strong oxidizing agents, Halogens 10.6 Hazardous decomposition products Other decomposition products - no data available 11. **TOXICOLOGICAL INFORMATION** 11.1 **Information on toxicological effects Acute toxicity** no data available Skin corrosion/irritation no data available Serious eye damage/eye irritation no data available Respiratory or skin sensitization no data available Germ cell mutagenicity no data available Carcinogenicity 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. Reproductive toxicity no data available Specific target organ toxicity - single exposure no data available **Specific target organ toxicity - repeated exposure** no data available As piration hazard no data available Potential health effects Inhalation May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Ingestion May be harmful if swallowed. Causes burns. May be harmful if absorbed through skin. Causes skin burns. Skin Eyes Causes eye burns. Signs and Symptoms of Exposure Nausea, Headache, Vomiting, Cough, chest pain, Difficulty in breathing **Additional Information** RTECS: Not available **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 no data available 12.6 Other adverse effects no data available 13. **DISPOSAL CONSIDERATIONS** 13.1 Waste treatment methods **Product** Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Contaminated packaging Dispose of as unused product. 14. TRANSPORT INFORMATION 14.1 **UN-Number** ADR/RID: 3160 IMDG: 3160 IATA: 3160 14.2 UN proper shipping name ADR/RID: LIQUEFIED GAS, TOXIC, FLAMMABLE, N.O.S. (Trimethylborane) IMDG: LIQUEFIED GAS, TOXIC, FLAMMABLE, N.O.S. (Trimethylborane) Liquefied gas, toxic, flammable, n.o.s. (Trimethylborane) IATA: Passenger Aircraft: Not permitted for transport Cargo Aircraft: Not permitted for transport 14.3 Transport hazard class(es) ADR/RID: 2.3 (2.1) IMDG: 2.3 (2.1) IATA: 2.3 (2.1) 14.4 Packaging group ADR/RID: -IMDG: -IATA: -14.5 **Environmental hazards** ADR/RID: no IMDG Marine pollutant: no IATA: no 14.6 **Special precautions for users** no data available **15. REGULATORY INFORMATION** This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture no data available 15.2 **Chemical Safety Assessment** no data available **16.** OTHER INFORMATION **Further information** For R&D use only. Not for drug, household or other uses. WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. 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Product identifiers

Product name

CAS-No.

IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Trimethylboron

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