1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING 1.1 **Product identifiers** Product name 2-Bromoacrolein CAS-No. 14925-39-4 1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses Laboratory chemicals, Manufacture of substances **HAZARDS IDENTIFICATION** 2. Classification of the substance or mixture 2.1 Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP] Acute toxicity, Oral (Category 2) Acute toxicity, Inhalation (Category 3) Acute toxicity, Dermal (Category 3) Skin corrosion (Category 1B) Acute aquatic toxicity (Category 1) Classification according to EU Directives 67/548/EEC or 1999/45/EC Toxic by inhalation, in contact with skin and if swallowed. Causes burns. Very toxic to aquatic organisms. 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 [CLP] Pictogram Signal word Danger Hazard statement(s) H300 Fatal if swallowed. H311 Toxic in contact with skin. H314 Causes severe skin burns and eye damage. Toxic if inhaled. H331 H400 Very toxic to aquatic life. Precautionary statement(s) P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash hands thoroughly after handling. P264 Avoid release to the environment. P273 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P310IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. P305 + P351 + P338IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Supplemental Hazard none Statements May produce an allergic reaction. According to European Directive 67/548/EEC as amended. Hazard symbol(s) R-phrase(s) R23/24/25 Toxic by inhalation, in contact with skin and if swallowed. Causes burns. R34 Very toxic to aquatic organisms. R50 S-phrase(s) In case of contact with eyes, rinse immediately with plenty of water and S26 seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. S36/37/39 In case of accident or if you feel unwell, seek medical advice immediately S45 (show the label where possible). S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets. Caution - this mixture contains a substance not yet fully tested. Sensitising components: Hydroquinone May produce an allergic reaction. 2.3 Other hazards - none 3. **COMPOSITION/INFORMATION ON INGREDIENTS** 3.1 Substances C3H3BrO Formula Concentration Component 2-Bromoacrolein CAS-No. 14925-39-4 Hydroquinone CAS-No. 123-31-9 0,2 % EC-No. 204-617-8 FIRST AID MEASURES 4. 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. Take victim immediately to hospital. 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. 4.2 Most important symptoms and effects, both acute and delayed To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. 4.3 Indication of any 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, Hydrogen bromide gas 5.3 Advice for firefighters 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 Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. **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 Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. **6.4** Reference to other sections For disposal see section 13. 7. HANDLING AND STORAGE 7.1 **Precautions for safe handling** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. 7.2 Conditions for safe storage, including any incompatibilities Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Recommended storage temperature: -20 °C Moisture sensitive. Light sensitive. Handle and store under inert gas. 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** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. 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** The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. 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. **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 ABEK (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 Form: liquid Appearance a) Colour: light yellow Odour no data available Odour Threshold no data available рН no data available d) Melting point/freezing no data available point Initial boiling point and 120 °C at 998 hPa boiling range Flash point no data available g) Evaporation rate no data available h) Flammability (solid, gas) no data available i) no data available j) Upper/lower flammability or explosive limits Vapour pressure no data available k) no data available Vapour density 1) m) Relative density 1,68 g/cm3 no data available Water solubility n) Partition coefficient: nlog Pow: 1,527 octanol/water Autoignition no data available temperature Decomposition no data available temperature no data available Viscosity r) Explosive properties no data available s) Oxidizing properties no data available 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 Contains the following stabiliser(s): Hydroquinone (0,2 %) 10.3 Possibility of hazardous reactions no data available 10.4 Conditions to avoid no data available Incompatible materials 10.5 no data available Hazardous decomposition products 10.6 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 Genotoxicity in vitro - Ames test - S. typhimurium - positive Genotoxicity in vitro - rat - Other cell types - negative Carcinogenicity IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydroquinone) 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 Toxic if inhaled. Material is extremely destructive to the tissue of the Inhalation mucous membranes and upper respiratory tract. May be fatal if swallowed. Causes burns. Ingestion Skin Toxic if absorbed through skin. Causes skin burns. Eyes Causes eye burns. Signs and Symptoms of Exposure To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. **Additional Information** RTECS: AS1110000 **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 Very toxic to aquatic life. **13. DISPOSAL CONSIDERATIONS** 13.1 Waste treatment methods **Product** Offer surplus and non-recyclable solutions to a licensed disposal company. Contaminated packaging Dispose of as unused product. **14.** TRANSPORT INFORMATION 14.1 UN number ADR/RID: 2927 IMDG: 2927 IATA: 2927 UN proper shipping name 14.2 ADR/RID: TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (2-Bromoacrolein) IMDG: TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (2-Bromoacrolein) Toxic liquid, corrosive, organic, n.o.s. (2-Bromoacrolein) IATA: 14.3 Transport hazard class(es) ADR/RID: 6.1 (8) IMDG: 6.1 (8) IATA: 6.1 (8) 14.4 Packaging group ADR/RID: II IMDG: II IATA: II 14.5 **Environmental hazards** ADR/RID: no IATA: no IMDG Marine pollutant: no 14.6 Special precautions for user 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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