1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING **Product identifiers** 1.1 Dichloroethylsilane Product name CAS-No. 1789-58-8 1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses Laboratory chemicals, Manufacture of substances 2. HAZARDS IDENTIFICATION 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP] Flammable liquids (Category 2) Substances, which in contact with water, emit flammable gases (Category 1) Skin corrosion (Category 1B) Respiratory sensitization (Category 1) Specific target organ toxicity - single exposure (Category 3) Classification according to EU Directives 67/548/EEC or 1999/45/EC Highly flammable. Reacts violently with water, liberating extremely flammable gases. Causes burns. Irritating to respiratory system. 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 [CLP] Pictogram Signal word Danger Hazard statement(s) H225 Highly flammable liquid and vapour. H260 In contact with water releases flammable gases which may ignite spontaneously. Causes severe skin burns and eye damage. H314 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H334 H335 May cause respiratory irritation. Precautionary statement(s) P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep away from any possible contact with water, because of violent P223 reaction and possible flash fire. Handle under inert gas. Protect from moisture. P231 + P232Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P261 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for P370 + P378extinction. P422 Store contents under inert gas. Supplemental Hazard none Statements According to European Directive 67/548/EEC as amended. Hazard symbol(s) R-phrase(s) Highly flammable. R11 Reacts violently with water, liberating extremely flammable gases. R14/15Causes burns. R34 R37 Irritating to respiratory system. S-phrase(s) S16 Keep away from sources of ignition - No smoking. 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). Other hazards - none 2.3 3. **COMPOSITION/INFORMATION ON INGREDIENTS** 3.1 Substances Synonyms Ethyldichlorosilane C2H6Cl2Si Formula Molecular Weight 129,06 g/mol Concentration Component **Dichloroethylsilane** CAS-No. 1789-58-8 EC-No. 217-255-0 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. 4.2 Most important symptoms and effects, both acute and delayed Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea 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 Dry powder Carbon dioxide (CO2) Unsuitable extinguishing media Water Special hazards arising from the substance or mixture 5.2 Carbon oxides, Hydrogen chloride gas, silicon oxides 5.3 **Precautions for fire-fighters** Wear self contained breathing apparatus for fire fighting if necessary. 5.4 **Further information** no data available ACCIDENTAL RELEASE MEASURES **6.** 6.1 Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. **6.2 Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. 6.3 Methods and materials for containment and cleaning up Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water. 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. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. 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. Never allow product to get in contact with water during storage. Store under inert gas. Moisture sensitive. 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, Flame retardant antistatic protective clothing, 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: clear, liquid a) Appearance Colour: colourless Odour b) no data available Odour Threshold no data available d) pН no data available Melting/freezing point no data available Initial boiling point and no data available boiling range Flash point -9 °C - closed cup g) Evaporation rate no data available h) i) Flammability (solid, gas) no data available Upper/lower j) no data available flammability or explosive limits Vapour pressure no data available k) 1) Vapour density no data available 1,089 g/mL at 20 °C m) Relative density Water solubility no data available Partition coefficient: nno data available 0) octanol/water Autoignition no data available temperature Decomposition no data available temperature Viscosity no data available r) Explosive properties no data available s) no data available Oxidizing properties 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 10.3 Possibility of hazardous reactions Reacts violently with water. 10.4 **Conditions to avoid** Heat, flames and sparks. Extremes of temperature and direct sunlight. Exposure to moisture. **Incompatible materials** 10.5 Strong oxidizing agents, Water 10.6 Hazardous decomposition products Other decomposition products - no data available 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 May cause allergic respiratory reaction. 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 May cause respiratory irritation. 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. Causes respiratory tract irritation. 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 Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea **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 **DISPOSAL CONSIDERATIONS** 13. 13.1 Waste treatment methods **Product** Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. 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: 1183** IMDG: 1183 IATA: 1183 14.2 **UN proper shipping name** ADR/RID: ETHYLDICHLOROSILANE IMDG: ETHYLDICHLOROSILANE IATA: Ethyldichlorosilane Passenger Aircraft: Not permitted for transport Special Provisions: "Keep away from heat" label required. 14.3 **Transport hazard class(es)** ADR/RID: 4.3 (3, 8) IMDG: 4.3 (3, 8) IATA: 4.3 (3, 8) Packaging group 14.4 ADR/RID: I IMDG: I IATA: I 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. 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. Lookchem shall not be held liable www.lookchem.com for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.