1.1 **Product identifiers** Product name trans -2-Hexen-1-al CAS-No. 6728-26-3 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 3) Acute toxicity, Oral (Category 4) Acute toxicity, Dermal (Category 3) Skin sensitization (Category 1) Chronic aquatic toxicity (Category 2) Classification according to EU Directives 67/548/EEC or 1999/45/EC Flammable. Harmful in contact with skin and if swallowed. May cause sensitization by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 [CLP] Pictogram Signal word Danger Hazard statement(s) H226 Flammable liquid and vapour. H302 Harmful if swallowed. H311 Toxic in contact with skin. H317 May cause an allergic skin reaction. H411 Toxic to aquatic life with long lasting effects. Precautionary statement(s) P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing. P312 Call a POISON CENTER or doctor/physician if you feel unwell. Supplemental Hazard none Statements According to European Directive 67/548/EEC as amended. Hazard symbol(s) R-phrase(s) R10 Flammable. Harmful in contact with skin and if swallowed. R21/22R43 May cause sensitization by skin contact. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S-phrase(s) S16 Keep away from sources of ignition - No smoking. S36/37 Wear suitable protective clothing and gloves. Avoid release to the environment. Refer to special instructions/ Safety S61 data sheets. 2.3 Other hazards - none 3. **COMPOSITION/INFORMATION ON INGREDIENTS** 3.1 Substances Formula C6H10O 98,14 g/mol Molecular Weight Component Concentration Trans-hex-2-enal CAS-No. 6728-26-3 EC-No. 229-778-1 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 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 5.3 Advice for firefighters Wear self contained breathing apparatus for fire fighting if necessary. **Further information 5.4** Use water spray to cool unopened containers. **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. 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). **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. Recommended storage temperature: 2 - 8 °C Light sensitive. 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 Face shield and safety glasses 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 Appearance Form: clear, liquid a) Colour: light yellow no data available Odour b) Odour Threshold no data available c) рН no data available d) Melting point/freezing no data available e) point 47 °C at 23 hPa - lit. Initial boiling point and boiling range Flash point 38 °C - closed cup Evaporation rate no data available h) Flammability (solid, gas) no data available **i**) <u>j)</u> Upper/lower no data available flammability or explosive limits 13 hPa at 20 °C Vapour pressure 1) Vapour density 3.39 - (Air = 1.0)0,846 g/cm3 at 25 °C m) Relative density no data available Water solubility Partition coefficient: nno data available 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 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 10.3 Possibility of hazardous reactions no data available 10.4 Conditions to avoid Heat, flames and sparks. 10.5 **Incompatible materials** Oxidizing agents, Strong bases, Strong reducing agents 10.6 Hazardous decomposition products Other decomposition products - no data available 11. TOXICOLOGICAL INFORMATION 11.1 **Information on toxicological effects Acute toxicity** LD50 Oral - rat - 780 mg/kg Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Eye: Lacrimation. Vascular:Regional or general arteriolar or venous dilation. Gastrointestinal:Changes in structure or function of salivary glands. LD50 Dermal - rabbit - 600 mg/kg Skin corrosion/irritation Skin - rabbit - Skin irritation - 24 h Serious eye damage/eye irritation no data available Respiratory or skin sensitization May cause sensitization by skin contact. 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 Aspiration hazard no data available Potential health effects May be harmful if inhaled. Causes respiratory tract irritation. Inhalation Harmful if swallowed. Ingestion Toxic if absorbed through skin. Causes skin irritation. Skin Eyes Causes serious eye irritation. 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: MP5900000 **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** Waste treatment methods **Product** 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: 1988 IMDG: 1988 IATA: 1988 14.2 **UN proper shipping name** ADR/RID: ALDEHYDES, FLAMMABLE, TOXIC, N.O.S. (Trans-hex-2-enal) IMDG: ALDEHYDES, FLAMMABLE, TOXIC, N.O.S. (Trans-hex-2-enal) IATA: Aldehydes, flammable, toxic, n.o.s. (Trans-hex-2-enal) 14.3 Transport hazard class(es) ADR/RID: 3 (6.1) IMDG: 3 (6.1) IATA: 3 (6.1) 14.4 Packaging group ADR/RID: III IMDG: III IATA: III 14.5 **Environmental hazards** IATA: no ADR/RID: 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. The information in this document is based on the present state of our Look for Chemicals 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.

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