1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING 1.1 **Product identifiers** Iodomethane-13C Product name CAS-No. 4227-95-6 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] Acute toxicity, Oral (Category 3) Acute toxicity, Inhalation (Category 3) Acute toxicity, Dermal (Category 4) Skin irritation (Category 2) Carcinogenicity (Category 2) Specific target organ toxicity - single exposure (Category 3) Classification according to EU Directives 67/548/EEC or 1999/45/EC Limited evidence of a carcinogenic effect. Toxic by inhalation and if swallowed. Harmful in contact with skin. Irritating to respiratory system and skin. 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 [CLP] Pictogram Signal word Danger Hazard statement(s) H301 Toxic if swallowed. H312 Harmful in contact with skin. H315 Causes skin irritation. H331 Toxic if inhaled. H335 May cause respiratory irritation. H351 Suspected of causing cancer. Precautionary statement(s) P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wear protective gloves/ protective clothing. P280 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ P301 + P310physician. Call a POISON CENTER or doctor/ physician. P311 Supplemental Hazard none Statements According to European Directive 67/548/EEC as amended. Hazard symbol(s) R-phrase(s) R21 Harmful in contact with skin. R23/25 Toxic by inhalation and if swallowed. R37/38 Irritating to respiratory system and skin. R40 Limited evidence of a carcinogenic effect. S-phrase(s) S36/37 Wear suitable protective clothing and gloves. In case of insufficient ventilation, wear suitable respiratory equipment. S38 S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). 2.3 Other hazards Vesicant. **3. COMPOSITION/INFORMATION ON INGREDIENTS** 3.1 Substances Methyl-13C iodide Synonyms 13CH <u>1</u>13CH I Formula Concentration Component **Iodomethane-13C** CAS-No. 4227-95-6 >= 99 %Copper <1% CAS-No. 7440-50-8 EC-No. 231-159-6 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 Flush eyes with water as a precaution. If swallowed 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 Cough, Shortness of breath, Headache, Nausea, Vomiting, Dizziness, Blurred vision, Weakness Indication of immediate medical attention and special treatment needed 4.3 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 iodide 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 Personal precautions, protective equipment and emergency procedures 6.1 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. Normal measures for preventive fire protection. Conditions for safe storage, including any incompatibilities 7.2 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. Store under inert gas. hygroscopic Recommended storage temperature: 2 - 8 °C Light sensitive. 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** 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, 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: liquid Colour: colourless Odour no data available b) Odour Threshold no data available no data available рН Melting/freezing point Melting point/range: -66,5 °C - lit. Initial boiling point and 42 °C - lit. boiling range Flash point no data available Evaporation rate no data available h) Flammability (solid, gas) no data available i) Upper/lower no data available j) flammability or explosive limits 1.518,5 hPa at 55 °C Vapour pressure k) 437,7 hPa at 20 °C 4.93 - (Air = 1.0)1) Vapour density 2,29 g/mL at 25 °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) Oxidizing properties no data available 9.2 Other safety information no data available **10.** STABILITY AND REACTIVITY 10.1 Reactivity no data available Chemical stability 10.2 no data available Contains the following stabiliser(s): Copper (<1 %) 10.3 Possibility of hazardous reactions no data available 10.4 Conditions to avoid Avoid moisture. Incompatible materials 10.5 Strong oxidizing agents, Strong bases 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 no data available Carcinogenicity Carcinogen Limited evidence of carcinogenicity in animal studies IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Iodomethane-13C) Reproductive toxicity Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. Specific target organ toxicity - single exposure Inhalation - May cause respiratory irritation. Specific target organ toxicity - repeated exposure no data available As piration hazard no data available Potential health effects Inhalation Toxic if inhaled. Causes respiratory tract irritation. Ingestion Toxic if swallowed. Skin Harmful if absorbed through skin. Causes skin irritation. Signs and Symptoms of Exposure Cough, Shortness of breath, Headache, Nausea, Vomiting, Dizziness, Blurred vision, Weakness **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 Harmful to aquatic life with long lasting 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: 2644** IMDG: 2644 IATA: 2644 14.2 **UN proper shipping name** ADR/RID: METHYL IODIDE IMDG: METHYL IODIDE IATA: Methyl iodide Passenger Aircraft: Not permitted for transport Cargo Aircraft: Not permitted for transport 14.3 Transport hazard class(es) ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1 14.4 Packaging group ADR/RID: I IATA: -IMDG: I 14.5 **Environmental hazards** ADR/RID: no IATA: no IMDG Marine pollutant: 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. Safety, health and environmental regulations/legislation specific for the substance or mixture 15.1 no data available 15.2 **Chemical Safety Assessment** no data available OTHER INFORMATION **16. 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.