1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING 1.1 **Product identifiers** *n* -Butylbenzene solution Product name 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) Acute toxicity, Oral (Category 3) Acute toxicity, Inhalation (Category 3) Acute toxicity, Dermal (Category 3) Specific target organ toxicity - single exposure (Category 1) Chronic aquatic toxicity (Category 3) Classification according to EU Directives 67/548/EEC or 1999/45/EC Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. Harmful 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) H225 Highly flammable liquid and vapour. H301 Toxic if swallowed. H311 Toxic in contact with skin. H331 Toxic if inhaled. H370 Causes damage to organs. H412 Harmful to aquatic life with long lasting effects. Precautionary statement(s) P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P273 Avoid release to the environment. Wear protective gloves/ protective clothing. P280 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ P301 + P310physician. P311 Call a POISON CENTER or doctor/physician. Supplemental Hazard none Statements According to European Directive 67/548/EEC as amended. Hazard symbol(s) R-phrase(s) R11 Highly flammable. R23/24/25 Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in R39/23/24/25 contact with skin and if swallowed. R52/53Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S-phrase(s) Keep away from sources of ignition - No smoking. S16 Wear suitable protective clothing and gloves. S36/37 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. 2.3 Other hazards - none 3. **COMPOSITION/INFORMATION ON INGREDIENTS** 3.2 **Mixtures** Synonyms Butylbenzenesolution 1-Phenylbutane Classification Concentration Component Methanol CAS-No. 67-56-1 99,5 % Flam. Liq. 2; Acute Tox. 3; EC-No. 200-659-6 STOT SE 1; H225, H301, H311, H331, H370 F, T, R11 - R23/24/25 -R39/23/24/25 Butylbenzene CAS-No. 0,5 % 104-51-8 Flam. Liq. 3; Aquatic Acute 1; Aquatic Chronic 1; H226, EC-No. 203-209-7 H410 N, R10 - R50/53 For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16 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 Methyl alcohol may be fatal or cause blindness if swallowed., Cannot be made non-poisonous., Effects due to ingestion may include:, Nausea, Dizziness, Gastrointestinal disturbance, Weakness, Confusion., Drowsiness, Unconsciousness, May cause convulsions. 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 For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water. 5.2 Special hazards arising from the substance or mixture Carbon oxides 5.3 **Precautions for fire-fighters** Wear self contained breathing apparatus for fire fighting if necessary. **5.4 Further information** 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. Discharge into the environment must be avoided. 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 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 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 Form: liquid a) Appearance Colour: colourless b) Odour no data available Odour Threshold no data available c) рН no data available d) Melting/freezing point Melting point/range: -98 °C e) Initial boiling point and 64 - 65 °C at 1.013 hPa f) boiling range Flash point 11 °C - closed cup Evaporation rate no data available h) Flammability (solid, gas) no data available Upper/lower Upper explosion limit: 36 %(V) j) flammability or Lower explosion limit: 6 %(V) explosive limits 130,23 hPa at 20 °C Vapour pressure k) 547 hPa at 50 °C no data available 1) Vapour density m) Relative density 0,791 g/cm3Water solubility completely miscible Partition coefficient: nno data available octanol/water Autoignition 385 °C temperature Decomposition no data available temperature Viscosity no data available r) no data available Explosive properties 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 10.3 Possibility of hazardous reactions no data available 10.4 Conditions to avoid Heat, flames and sparks. Extremes of temperature and direct sunlight. 10.5 **Incompatible materials** Acids, Oxidizing agents, Alkali metals, Strong oxidizing agents, Acid chlorides, Acid anhydrides, Reducing agents 10.6 Hazardous decomposition products Other decomposition products - no data available 11. TOXICOLOGICAL INFORMATION 11.1 **Information on toxicological effects Acute toxicity** 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 Aspiration hazard no data available Potential health effects Inhalation Toxic if inhaled. Causes respiratory tract irritation. Toxic if swallowed. Ingestion Toxic if absorbed through skin. Causes skin irritation. Skin Eyes Causes serious eye irritation. Signs and Symptoms of Exposure Methyl alcohol may be fatal or cause blindness if swallowed., Cannot be made non-poisonous., Effects due to ingestion may include:, Nausea, Dizziness, Gastrointestinal disturbance, Weakness, Confusion., Drowsiness, Unconsciousness, May cause convulsions. **Additional Information** RTECS: Not available **12. ECOLOGICAL INFORMATION** 12.1 **Toxicity** no data available Persistence and degradability no data available 12.3 **Bioaccumulative potential** no data available 12.4 Mobility in soil no data available Results of PBT and vPvB assessment 12.5 no data available 12.6 Other adverse effects Harmful to aquatic life with long lasting effects. 13. **DISPOSAL CONSIDERATIONS** 13.1 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. 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: 1230 IMDG: 1230 IATA: 1230 14.2 **UN proper shipping name** ADR/RID: METHANOL, SOLUTION METHANOL, SOLUTION IMDG: IATA: Methanol, SOLUTION 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: II IMDG: II IATA: II 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 Text of H-code(s) and R-phrase(s) mentioned in Section 3 Acute Tox. Acute toxicity Acute aquatic toxicity Aquatic Acute Aquatic Chronic Chronic aquatic toxicity Flammable liquids Flam. Liq. H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H301 Toxic if swallowed. Toxic in contact with skin. H311 H331 Toxic if inhaled. H370 Causes damage to organs. H410 Very toxic to aquatic life with long lasting effects. Specific target organ toxicity - single exposure STOT SE Highly flammable F Dangerous for the environment N Flammable. R10 R11 Highly flammable. R23/24/25 Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with R39/23/24/25 skin and if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic R50/53environment. T Toxic **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.