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MATERIAL SAFETY DATA SHEET (o-Dichloro Benzene)

SECTION 1: Identification of the substance

mixture and of the company/undertaking 1.1 Product identifiers Product name : o-Dichloro Benzene CAS-No. : 95-50-1 1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses : Laboratory chemicals, Industrial & for professional use only.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 Acute toxicity, Oral (Category 4), H302 Acute toxicity, Inhalation (Category 4), H332 Skin irritation (Category 2), H315 Eye irritation (Category 2), H319 Skin sensitisation (Category 1), H317 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335 Acute aquatic toxicity (Category 1), H400 Chronic aquatic toxicity (Category 1), H410 For the full text of the H-Statements mentioned in this Section, see Section 16. 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal word Warning o-Dichloro Benzene CAS No 95-50-1 MATERIAL SAFETY DATA SHEET SDS/MSDS Hazard statement(s) H302 + H332 Harmful if swallowed or if inhaled H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

SECTION 3: Composition/information on ingredients

3.1 Substances Formula : C6H4Cl2 Molecular weight : 147,00 g/mol CAS-No. : 95-50-1 EC-No. : 202-425-9 Index-No. : 602-034-00-7 Hazardous ingredients according to Regulation (EC) No 1272/2008 Component Classification Concentration 1,2-Dichlorobenzene CAS-No. 95-50-1 Acute Tox. 4; Skin Irrit. 2; Eye <= 100 % EC-No. 202-425-9 Irrit. 2; Skin Sens. 1; STOT SE Index-No. 602-034-00-7 3; Aquatic Acute 1; Aquatic Chronic 1; H302, H332, H315, H319, H317, H335, H400, H410 M-Factor - Aquatic Acute: 1 For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 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 inhaled 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. 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 The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11 4.3 Indication of any immediate medical attention and special treatment needed No data available

SECTION 5: Firefighting 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 chloride gas 5.3 Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary. 5.4 Further information Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid breathing vapours, 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. For personal protection see section 8. 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). Keep in suitable, closed containers for disposal. 6.4 Reference to other sections For disposal see section 13.

SECTION 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. For precautions see section 2.2. 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. Light sensitive. Storage class (TRGS 510): Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects Page 3 of 7 7.3 Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 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 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. 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). Control of environmental exposure Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties a) Appearance Form: liquid, clear Colour: colourless b) Odour No data available c) Odour Threshold No data available d) pH No data available e) Melting point/freezing Melting point/range: -18 - -17 °C - lit. point f) Initial boiling point and 178 - 180 °C - lit. boiling range g) Flash point 66,0 °C - closed cup h) Evaporation rate No data available i) Flammability (solid, gas) No data available j) Upper/lower Upper explosion limit: 9,2 %(V) flammability or Lower explosion limit: 2,2 %(V) explosive limits k) Vapour pressure 2,1 hPa at 35,0 °C 1,6 hPa at 20,0 °C Page 4 of 7 l) Vapour density No data available m) Relative density 1,306 g/cm3 at 25 °C n) Water solubility ca.0,1558 g/l at 25 °C - partly soluble o) Partition coefficient: n- log Pow: ca.3,433 at 25 °C octanol/water p) Auto-ignition 648,0 °C temperature q) Decomposition No data available temperature r) Viscosity No data available s) Explosive properties No data available t) Oxidizing properties No data available 9.2 Other safety information Surface tension ca.36,61 mN/m

SECTION 10: Stability and reactivity

10.1 Reactivity No data available 10.2 Chemical stability Stable under recommended storage conditions. 10.3 Possibility of hazardous reactions No data available 10.4 Conditions to avoid Heat, flames and sparks. 10.5 Incompatible materials Strong oxidizing agents 10.6 Hazardous decomposition products Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects Acute toxicity LD50 Oral - Rat - 500,0 mg/kg Inhalation: Lung irritation LD50 Dermal - Rabbit - > 10.000 mg/kg Skin corrosion/irritation Skin - Rabbit (OECD Test Guideline 404) Serious eye damage/eye irritation No data available Respiratory or skin sensitisation in

vivo assay - Mouse May cause sensitisation by skin contact. (OECD Test Guideline 429) Germ cell mutagenicity No data available Ames test Salmonella typhimurium Result: negative OECD Test Guideline 474 Mouse - male - Bone marrow Result: negative Carcinogenicity IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (1,2-Dichlorobenzene) Reproductive toxicity No data available Specific target organ toxicity - single exposure No data available Specific target organ toxicity - repeated exposure Aspiration hazard No data available Additional Information Repeated dose Rat - male and female - Oral - 24 h - NOAEL : 60 mg/kg - LOAEL : 125 mg/kg - toxicity OECD Test Guideline 408 RTECS: CZ4500000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity Toxicity to fish flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 1,58 mg/l - 96 h Toxicity to daphnia and static test EC50 - Ceriodaphnia dubia (water flea) - 0,66 mg/l - 48 h other aquatic invertebrates Toxicity to algae Growth inhibition EC50 - Pseudokirchneriella subcapitata - 2,2 mg/l - 96 h 12.2 Persistence and degradability Biodegradability aerobic - Exposure time 28 d Result: 0 % - Not readily biodegradable. (OECD Test Guideline 301C) 12.3 Bioaccumulative potential Bioaccumulation 12.4 Mobility in soil No data available Cyprinus carpio (Carp) - 56 d - 0,01 mg/l Bioconcentration factor (BCF): 90 - 260 (OECD Test Guideline 305C) 12.5 Results of PBT and vPvB assessment This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. 12.6 Other adverse effects Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods Product This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contaminated packaging Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number ADR/RID: 1591 IMDG: 1591 IATA: 1591 14.2 UN proper shipping name ADR/RID: o-DICHLOROBENZENE IMDG: ortho-DICHLOROBENZENE IATA: o-Dichlorobenzene 14.3 Transport hazard class(es) ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1 14.4 Packaging group ADR/RID: III IMDG: III IATA: III 14.5 Environmental hazards ADR/RID: yes IMDG Marine pollutant: yes IATA: no 14.6 Special precautions for user No data available

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010. 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture 15.2 Chemical Safety Assessment For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3. H302 Harmful if swallowed. H302 + H332 Harmful if swallowed or if inhaled H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. Further information 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. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale