1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING 1.1 **Product identifiers** Ammonium chromate Product name CAS-No. 7788-98-9 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] Oxidizing solids (Category 2) Skin corrosion (Category 1B) Respiratory sensitization (Category 1) Carcinogenicity, Inhalation (Category 1A) Acute aquatic toxicity (Category 1) Classification according to EU Directives 67/548/EEC or 1999/45/EC May cause cancer by inhalation. Contact with combustible material may cause fire. Causes burns. May cause sensitization by skin contact. Very 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) H272 May intensify fire; oxidiser. H314 Causes severe skin burns and eye damage. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause cancer by inhalation. H350i Very toxic to aquatic life. H400 Precautionary statement(s) P201 Obtain special instructions before use. Keep/Store away from clothing/ combustible materials. P220 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P261 P273 Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face P280 protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove P305 + P351 + P338contact lenses, if present and easy to do. Continue rinsing. Supplemental Hazard none Statements Restricted to professional users. According to European Directive 67/548/EEC as amended. Hazard symbol(s) R-phrase(s) R49 May cause cancer by inhalation. Contact with combustible material may cause fire. **R8** R34 Causes burns. May cause sensitization by skin contact. R43 R50/53Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S-phrase(s) Avoid exposure - obtain special instructions before use. S53 S17 Keep away from combustible material. 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 accident or if you feel unwell, seek medical advice immediately S45 (show the label where possible). This material and its container must be disposed of as hazardous waste. S60 Avoid release to the environment. Refer to special instructions/ Safety S61 data sheets. Restricted to professional users. 2.3 Other hazards - none 3. **COMPOSITION/INFORMATION ON INGREDIENTS** 3.1 **Substances** Formula H8CrN2O4 152,07 g/mol Molecular Weight Component Concentration **Ammonium chromate** CAS-No. 7788-98-9 EC-No. 232-138-4 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 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated., Cough, Shortness of breath, Headache, Nausea, Vomiting 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 nitrogen oxides (NOx), Chromium oxides 5.3 Advice for firefighters 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 Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. **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 Sweep up and shovel. 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. 7. HANDLING AND STORAGE 7.1 **Precautions for safe handling** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition No smoking. Keep away from heat and sources of ignition. 7.2 Conditions for safe storage, including any incompatibilities Store in cool place. Keep container tightly closed in a dry and well-ventilated place. 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 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 particle respirator type N100 (US) or type P3 (EN 143) 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: crystalline Appearance a) Colour: yellow Odour no data available b) Odour Threshold no data available рН no data available Melting point/freezing no data available point Initial boiling point and no data available boiling range Flash point not applicable g) Evaporation rate no data available h) 1) Flammability (solid, gas) no data available Upper/lower no data available j) flammability or explosive limits Vapour pressure no data available k) no data available 1) Vapour density 1,91 g/mL at 25 °C m) Relative density no data available Water solubility Partition coefficient: nno data available 0) 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 The substance or mixture is classified as oxidizing with the subcategory 2. 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 10.3 Possibility of hazardous reactions no data available 10.4 Conditions to avoid no data available Incompatible materials 10.5 Strong acids, Organic materials, Powdered metals 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 no data available May cause sensitization by inhalation. Germ cell mutagenicity no data available Carcinogenicity Human carcinogen. May cause cancer by inhalation. 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 May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May be harmful if swallowed. Causes burns. Ingestion Skin May be harmful if absorbed through skin. Causes skin burns. Eyes Causes eye burns. Signs and Symptoms of Exposure To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated., Cough, Shortness of breath, Headache, Nausea, Vomiting **Additional Information** RTECS: GB2880000 **12. ECOLOGICAL INFORMATION** 12.1 **Toxicity** Toxicity to daphnia and LC50 - Daphnia magna (Water flea) - 0,364 mg/l - 48 h other aquatic invertebrates. 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 Very toxic to aquatic life. 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. Contaminated packaging Dispose of as unused product. **14.** TRANSPORT INFORMATION 14.1 UN number ADR/RID: 3085 IMDG: 3085 IATA: 3085 14.2 **UN proper shipping name** ADR/RID: OXIDIZING SOLID, CORROSIVE, N.O.S. (Ammonium chromate) IMDG: OXIDIZING SOLID, CORROSIVE, N.O.S. (Ammonium chromate) IATA: Oxidizing solid, corrosive, n.o.s. (Ammonium chromate) Transport hazard class(es) 14.3 ADR/RID: 5.1 (8) IMDG: 5.1 (8) IATA: 5.1 (8) 14.4 Packaging group ADR/RID: II IMDG: II IATA: II 14.5 **Environmental hazards** ADR/RID: no IATA: 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. 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 **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.