Hazard statement(s) H317 May cause an allergic skin reaction. Precautionary statement(s) P280 Wear protective gloves. Supplemental Hazard none Statements According to European Directive 67/548/EEC as amended. Hazard symbol(s) R-phrase(s) R43 May cause sensitization by skin contact. S-phrase(s) S37 Wear suitable gloves. 2.3 Other hazards - none 3. **COMPOSITION/INFORMATION ON INGREDIENTS** 3.1 Substances Formula C8H9NO3 Molecular Weight 167,16 g/mol Concentration Component CAS-No. 40611-79-8 4. FIRST AID MEASURES **Description of first aid measures** 4.1 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. 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. Most important symptoms and effects, both acute and delayed 4.2 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. Special hazards arising from the substance or mixture **5.2** Carbon oxides, nitrogen oxides (NOx) Advice for firefighters 5.3 Wear self contained breathing apparatus for fire fighting if necessary. **5.4 Further information** no data available **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. Avoid breathing dust. **6.2 Environmental precautions** Do not let product enter drains. Methods and materials for containment and cleaning up 6.3 Pick up and arrange disposal without creating dust. Sweep up and shovel. 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. Provide appropriate exhaust ventilation at places where dust is formed. 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 The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. 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** For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. 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: solid Appearance a) b) Odour no data available Odour Threshold no data available pН no data available d) Melting point/freezing Melting point/range: 101 - 105 °C point Initial boiling point and no data available boiling range no data available Flash point Evaporation rate no data available h) i) Flammability (solid, gas) no data available j) Upper/lower no data available flammability or explosive limits Vapour pressure no data available 1) Vapour density no data available no data available m) Relative density no data available Water solubility n) Partition coefficient: nlog Pow: 1,318 octanol/water Autoignition no data available p) temperature Decomposition no data available temperature no data available Viscosity r) Explosive properties no data available s) Oxidizing properties no data available 9.2 Other safety information no data available STABILITY AND REACTIVITY **10.** 10.1 Reactivity no data available 10.2 Chemical stability no data available 10.3 Possibility of hazardous reactions no data available Conditions to avoid no data available **Incompatible materials** 10.5 Steel (all types and surface treatments), Aluminum 10.6 Hazardous decomposition products Other decomposition products - no data available TOXICOLOGICAL INFORMATION 11. 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 May cause allergic skin reaction. 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 May be harmful if inhaled. May cause respiratory tract irritation. May be harmful if swallowed. Ingestion Skin May be harmful if absorbed through skin. May cause skin irritation. May cause eye irritation. Eyes 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: Not available **12. ECOLOGICAL INFORMATION** 12.1 **Toxicity** no data available Persistence and degradability 12.2 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** 13.1 Waste treatment methods **Product** Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Contaminated packaging Dispose of as unused product. **14.** TRANSPORT INFORMATION 14.1 UN number ADR/RID: -IMDG: -IATA: -14.2 **UN proper shipping name** ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods 14.3 Transport hazard class(es) ADR/RID: -IMDG: -IATA: -14.4 Packaging group ADR/RID: -IMDG: -IATA: -14.5 **Environmental hazards** IATA: no ADR/RID: no IMDG Marine pollutant: no 14.6 Special precautions for user no data available **REGULATORY INFORMATION 15.** 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 **Chemical Safety Assessment** 15.2 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.

1.

1.1

1.2

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2.1

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Product identifiers

Product name

Identified uses

Label elements

Pictogram

Signal word

HAZARDS IDENTIFICATION

Skin sensitization (Category 1)

Classification of the substance or mixture

May cause sensitization by skin contact.

CAS-No.

IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

40611-79-8

Relevant identified uses of the substance or mixture and uses advised against

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Warning

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Labelling according Regulation (EC) No 1272/2008 [CLP]

Ethyl 4-formylpyrrole-2-carboxylate

Laboratory chemicals, Manufacture of substances