| Dept.: Health & Safety | Doc. Code: ASR-HS-SP-003-WI-F021 | Issue / Revising Date:2022.07.21 |
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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

| Product name: | ALKYL LACTATE |
|----------------------|--|
| Product description: | ALKYL LACTATE |
| catalog code: | ARIA LACTATE-SDS 21 |
| Manufacturer: | Aria Shimi Rayka Co. Unit 3, No.18, 17 th Alley, Bokharest St. Argentina Sq. Tehran, IRAN |
| Telephone: | (+98-21)433 87 |
| fax number : | (+98) 21 88100000 |

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical and Common Name | CAS Registry Number | Wt. % |
|---------------------------------|---------------------|-------|
| Alkyl Lactate | 93925-36-1 | 100 |

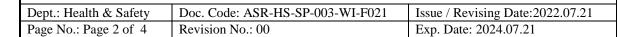
3. HAZARDS IDENTIFICATION

| | Clear Liquid. |
|---------------------|--|
| Emergency Overview: | Causes severe irritation to eyes. Causes moderate skin irritation. Spray mist causes |
| | irritation to respiratory tract. Due to high pH of product, release into surface water |
| | is harmful to aquatic life. |
| Eye contact: | Causes severe irritation to the eyes. |
| Skin contact: | Causes moderate irritation to the skin. |
| Inhalation: | Spray mis irritating to respiratory tract. |
| Ingestion: | May cause irritation to mouth, esophagus, and stomach. |
| Chronic hazards: | No known chronic hazards. Not listed by NTP, IARC or OSHA as a carcinogen |
| Physical hazards: | Not classified. |

4. FIRST AID MEASURES

| Eye | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately. |
|--|---|
| Skin | Wash off with soap and water. Get medical attention if irritation develops and persists. Remove and isolate contaminated clothing and shoes. Wash clothing separately before reuse. |
| Inhalation | Move to fresh air. Call a physician if symptoms develop or persist. |
| Ingestion | Rinse mouth. Get medical attention if symptoms occur |
| Most important symptoms/effects, acute and delayed | Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. |
| General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

5. FIRE FIGHTING MEASURES





| Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). foam consistent to alcohol. |
|--|---|
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire |
| Specific hazards arising from the chemical | During fire, gases hazardous to health may be formed. |
| Special protective equipment and | Self-contained breathing apparatus and full protective clothing must be worn |
| precautions for firefighters | in case of fire. |
| Fire-fighting equipment/instructions | Move containers from fire area if you can do so without risk. |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials |
| General fire hazards | No unusual fire or explosion hazards noted. |

6. ACCIDENTAL RELEASE MEASURES

| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. |
|---|--|
| Methods and materials for containment and cleaning up | Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. |
| Environmental precautions | Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. |

7. HANDLING AND STORAGE

| Precautions for safe handling | Do not get this material in contact with eyes. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains |
|--|---|
| Conditions for safe storage, including any incompatibilities | Store in original tightly closed container. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| Biological limit values | No biological exposure limits noted for the ingredient(s) |
|--|---|
| Appropriate engineering controls | Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Eye wash facilities and emergency shower must be available when handling this product. |
| Individual protection measures, such as personal protective equipment Eye/face protection | Wear safety glasses with side shields (or goggles) and a face shield. |
| Skin protection Hand protection | Wear protective gloves. |
| Other | Wear appropriate chemical resistant clothing. |

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| Respiratory protection | In case of insufficient ventilation, wear suitable respiratory equipment. | |
|--------------------------------|--|--|
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. | |
| | Always observe good personal hygiene measures, such as washing after | |
| General hygiene considerations | handling the material and before eating, drinking, and/or smoking. Routinely | |
| | wash work clothing and protective equipment to remove contaminants. | |

9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | Clear |
|---|----------------------|
| Physical state | Liquid |
| Odor | Characteristic, mild |
| Initial boiling point and boiling range | $100^{0} \mathrm{c}$ |
| Density (gr/cm3) | 0.920-0.935 |
| Ester Purity | Min 80 |
| Refractive Index (20°C) | 1.440-1.450 |

10. STABILITY AND REACTIVITY

| Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport |
|-------------------------------------|--|
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous. reactions | No dangerous reaction known under conditions of normal use |
| Conditions to avoid | Avoid temperatures exceeding the flash point. Contact with incompatible materials |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | No hazardous decomposition products are known. |

11. TOXICOLOGICAL INFORMATION

| Information on likely routes of exposure Inhalation | Prolonged inhalation may be harmful. |
|--|---|
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Causes serious eye damage. |
| Ingestion | Expected to be a low ingestion hazard. |
| Symptoms related to the physical, chemical and toxicological characteristics | Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. |
| Dermal LD50 | > 2000 mg/kg |
| Oral LD50 | 3730 mg/kg |

12. ECOLOGICAL INFORMATION

| Ecotoxicity | Toxic to aquatic life. Harmful to aquatic life with long lasting effects. |
|-------------------------------|---|
| Persistence and degradability | Readily biodegradable. |
| Mobility in soil | No data available |
| Bioaccumulative potential | No data available |
| Other adverse effects | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. |

13. DISPOSAL CONSIDERATIONS

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| Disposal instructions | Dispose of contents/container in accordance with local/regional/national/international regulations. |
|---|--|
| Hazardous waste code | The waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| Waste from residues / unused product | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue follow label warnings even after container is emptied. | |

14. TRANSPORT INFORMATION

| DOT | Not regulated as dangerous goods. |
|--|-----------------------------------|
| IATA | Not regulated as dangerous goods. |
| IMDG | Not regulated as dangerous goods. |
| Transport in bulk according. Annex II of MARPOL 73/78 and the IBC Code | Not available. |

15. REGULATORY INFORMATION

| US federal regulations | This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. |
|---|--|
| TSCA Section 12(b) Export Notification (40 CFR 707, Sub pt. D) | Not regulated. |
| CERCLA Hazardous Substance List (40 CFR 302.4) | Not regulated. |
| SARA 304 Emergency release notification | Not regulated. |
| OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052) | Not regulated. |
| Superfund Amendments and Reauthorization Act of 1986 (SARA) | Not regulated. |
| SARA 311/312 Hazardous | yes |
| Clean Water Act (CWA) | Not regulated. |

16. OTHER INFORMATION

THE INFORMATION ON THIS SAFETY DATA SHEET IS BELIEVED TO BE ACCURATE AND IT IS THE BEST INFORMATION AVAILABLE TO ARIA SHIMI RAYKA Co THIS DOCUMENT IS INTENDED ONLY AS A GUIDE TO THE APPROPRIATE PRECAUTIONS FOR HANDLING A CHEMICAL BY A PERSON TRAINED IN CHEMICAL HANDLING. ARIA SHIMI RAYKA MAKES NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED WITH RESPECT TO SUCH INFORMATION OR THE PRODUCT TO WHICH IT RELATES, AND WE ASSUME NO LIABILITY RESULTING FROM THE USE OR HANDLING OF THE PRODUCT TO WHICH THIS SAFETY DATA SHEET RELATES. USERS AND HANDLERS OF THIS PRODUCT SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION PROVIDED HEREIN FOR THEIR OWN PURPOSES.