

Title: Safety Data Sheet of ESTERAQUAT



Dept.: Health & Safety	Doc. Code: ASR-HS-SP-003-WI-F010	Issue / Revising Date:2022.07.21
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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name:	ESTERAQUAT
Product description:	Bis Hydroxy Ethyl Methyl Ammonium Methosulfate 1 mEq/g
catalog code :	ESTERAQUAT- SDS 10
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. %
Quaternary TEA esters, C16-18 and C18 unsat. methosulfate	157905-74-3	90%
Isopropanol	67-63-0	10%

3. HAZARDS IDENTIFICATION

Emergency Overview:	has a slight smell of isopropanol, yellow paste /yellow liquid 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:	Causes 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
Chronic hazards:	No known chronic hazards. Not listed by NTP, IARC or OSHA as a carcinogen
Physical hazards:	Flammable liquids and paste

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).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures.

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	This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn 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	Flammable liquid and vapor.

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	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. 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. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
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. Use appropriate containment to avoid environmental contamination.

7. HANDLING AND STORAGE

Precautions for safe handling	Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid 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	Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Avoid spark promoters. Eliminate sources of ignition. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store

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	in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Refrigeration recommended. Keep in an area equipped with sprinklers.
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Biological limit values	component	value	Determinant	Specimen	Sampling Time
ACGIH Biological Exposure Indices	Isopropanol (CAS 67-63-0)	40mg/L	Acetone	urine	*
Appropriate engineering controls	Explosion-proof general and local exhaust ventilation. 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.				
Individual protection measures, such as personal protective equipment	Wear safety glasses with side shields (or goggles) and a face shield.				
Eye/face protection					
Skin protection /Hand protection	Wear protective gloves.				
Other	Wear appropriate chemical resistant clothing.				
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. . If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.				
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.				
General hygiene considerations	When using do not smoke. Always observe good personal hygiene measures, such as washing after 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:	Opaque liquid/yellow paste
Physical state	Liquid/paste
Odor:	Alcoholic.
pH:	2.5-4(5% in IPA/water)
Melting point/freezing point	38.89 °C(102 °F)
Initial boiling point and boiling range	> 82.22 °C (> 180 °F)
Flash point	22.5 °C (72.5 °F) Pensky-Martens Closed Cup
Specific gravity	0.9615
Relative density	0.99 @ 20°C
Dilutability, 1 % aqueous	In hot water dispersible
Percent volatile	9 to 11 %

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 heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	acids. Strong oxidizing agents. Isocyanates. Chlorine.
Hazardous decomposition products	No hazardous decomposition products are known.

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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 eye irritation
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Exposed individuals may experience eye tearing, redness, and discomfort
Dermal LD50	> 2000 mg/kg
Oral LD50	>2000 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity	Toxic to aquatic life. Harmful to aquatic life with long lasting effects.
Persistence and degradability	Readily biodegradable.
Bioaccumulative potential	No data available
Mobility in soil	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

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)
Contaminated packaging	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 to 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 available.
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

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Clean Water Act (CWA)	Not regulated.
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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.