. HAZARDS IDENTIFICATION

Causes eye irritation. Harmful if absorbed through skin. May be harmful if swallowed.

Inhalation: Vapor may cause irritation.

Swallowing: May be harmful if swallowed.

Eye contact: Causes moderate to severe irritation.

Skin absorption: Harmful if absorbed through skin.

Skin contact: Prolonged contact may cause irritation.

3. COMPOSITION

Chemical Name Wt.% CAS No.

2-Ethylhexanol Ethoxylate Min. 99.9 26468-76-0

4. FIRST AID MEASURES

General advice: Remove contaminated clothing.

Inhalation: If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

Skin: Wash thoroughly with soap and water.

Eyes: Wash affected eyes for at least 15 minutes under running water with eyelids held open.

Swallowing: Rinse mouth and then drink plenty of water.

5. FIRE-FIGHTING MEASURES

Flash point: > 120 °C

Autoignition: > 200 °C

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Suitable extinguishing media: water spray, dry extinguishing media, foam

Hazards during fire-fighting: harmful vapours Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Protective equipment for fire-fighting: Firefighters should be equipped with selfcontained breathing apparatus and turn-out gear.

Further information: Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

Small Spill and Leak: Absorb with an inert material and put the spilled material in an appropriate waste disposal. If necessary, Use suitable protective equipment.

Large Spill and Leak: Absorb with an inert material and put the spilled material in an appropriate waste disposal. Use suitable protective equipment. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system.

7. HANDLING AND STORAGE

Handling: No special measures necessary provided product is used correctly.

Protection against fire and explosion: No special precautions necessary.

Storage: Keep container tightly closed and in a cool place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection

Eye: Splash goggles.

Body: Lab coat

Respiratory: Wear appropriate respirator when ventilation is inadequate

Hand: Gloves

Personal Protection in case of Large Spills: Splash goggles. Full suit. Boots. Gloves.

Suggested protective clothing might not be sufficient; consult

a specialist BEFORE handling this product.

The material is hygroscopic - avoid moisture ingress by keeping containers tightly closed.

Materials suitable for storage containers are mild steel, stainless steel, butyl rubber. Unsuitable materials are copper, copper alloys, most rubbers and most plastics.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear Yellowish Liquid

Odor: Mild

Solubility: Soluble in Water

Density at 25°C: 0.97-1.08

pH(5%): 6-8

Flash Point: >120°C

Viscosity @ 50°C: ca. 50 cSt

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to Avoid: Product can decompose at elevated temperatures.

Incompatibility with Other Materials: Avoid contact with oxidizing materials.

Hazardous Decomposition Products: When available oxygen is limited, as in a fire or when heated to very high temperatures by hot wire or plate, carbon monoxide and other hazardous compounds such as aldehydes might be generated.

11. TOXICOLOGICAL INFORMATION

No information available at this time.

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

Waste disposal of substance: Must be dumped or incinerated in accordance with local regulations.

Container disposal: Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. TRANSPORT INFORMATION

DOT Classification: This product is not regulated by DOT.

UN number: Not Regulated.

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15. REGULATORY INFORMATION

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Caution

The information contained in this Material Safety Data Sheet (MSDS) is believed to be correct since it was obtained from sources we believe are reliable. However no representation, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications, hazards connected with the use of the material, or the results to be obtained from the use thereof. User assumes all risks and liability of any use, processing or handling of any material, variations in methods, conditions and equipment used to store, handle, or process the material and hazards connected with the use of the material are solely the responsibility of the user and remain at his sole discretion. HAZARDS IDENTIFICATION

Potential Health Effects: Harmful. Irritant. Dangerous for the environment.

Harmful if swallowed. Risk of serious damage to eyes. Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

Eye Contact: Cause irritation. Irrigate eye with water for at least 15 to 20 minutes. Seek medical attention if symptoms persist.

Inhalation: Vapor may cause irritation.

Swallowing: May be harmful if swallowed.

Skin absorption: Harmful if absorbed through skin.

Skin contact: Prolonged contact may cause irritation.

3. COMPOSITION

Chemical Name Wt.% CAS No.

Tallow amine Ethoxylate Min. 99.9 61791-26-2

4. FIRST AID MEASURES

Eyes: Irrigate eyes with a heavy stream of water for at least 15 to 20 minutes.

Skin: Wash exposed areas of the body with soap and water.

Inhalation: Remove from area of exposure; seek medical attention if symptoms persist.

Ingestion: Give one or two glasses of water to drink. If gastro-intestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person.)

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5. FIRE-FIGHTING MEASURES

Extinguishing media: Water spray, fog or mist, foam, powder, carbon dioxide. Non-flammable. If involved in a fire it will support combustion.

Special protective equipment: Wear a self-contained breathing apparatus.

Further information: Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions: Should not be allowed to enter drains or water courses.

Methods for cleaning up Contain spill with inert material. Absorb in vermiculite, dry sand or earth. Place in container for disposal according to local regulations.

7. HANDLING AND STORAGE

Precautions in Handling: Apply good manufacturing practice & industrial hygiene practices, ensuring proper ventilation. Observe good personal hygiene, and do not eat, drink or smoke whilst handling.

Storage Condition: Store in tightly closed original container, in a cool, dry & ventilated area away from heat sources & protected from light. Keep air contact to a minimum.

Fire Protection: Keep away from ignition sources & naked flames. Take precautions to avoid static discharges in working area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection: If vapors or mists are generated, wear a NIOSH approved organic vapor/mist respirator.

Protective Clothing: Safety glasses, goggles, or face shield recommended to protect eyes from mists or splashing. PVC coated gloves recommended to prevent skin contact.

Personal protection: Respiratory Keep respiratory equipment available. If use conditions can

generate aerosol or mist,

wear suitable respiratory equipment.

Hand Chemical resistant gloves required for prolonged or repeated contact.

Eyes Wear tightly fitting safety goggles.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Tallow amine 15EO

Appearance: Clear Yellow to Amber Liquid

Specific Gravity: 1.023 @ 25°C

pH: 9-10.5(1% in IPA:water)

Freezing/Melting Point: -7 to -2°C Boling

Point: >260°C

Vapor Pressure: <0.1 mmHg

Viscosity: 91.2 cSt @ 40°C

Vapor Density: >1

Solubility in water: Soluble

10. STABILITY AND REACTIVITY

General: This product is stable and hazardous polymerization will not occur.

Incompatible Materials and Conditions to Avoid: Acidic agents

Hazardous Decomposition Products: Combustion produces nitrous gases.

11. TOXICOLOGICAL INFORMATION

No information available at this time.

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

Waste may be disposed of by a licensed waste disposal company. Contaminated absorbent material may be disposed of in an approved land fill. Follow local disposal regulations.

14. TRANSPORT INFORMATION

DOT

UN Number: UN2735

UN Proper shipping name: Amines, Liquid,

Corrosive, N.O.S. (Amines, Tallow Alkyl,

Ethoxylated)

Transport Hazard Class(es)

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Class: 8

Subsidiary risk: -

Packing group: II

Special precaution for user: Not available.

IATA

UN Number: UN2735

UN Proper shipping name: Amines, Liquid,

Corrosive, N.O.S. (Amines, Tallow Alkyl,

Ethoxylated)

Transport Hazard Class(es)

Class: 8

Subsidiary risk: -

Packing group: II

Environmental Hazards: Yes

Special precaution for user: Not available.

IMDG

UN Number: UN2735

UN Proper shipping name: Amines, Liquid,

Corrosive, N.O.S. (Amines, Tallow Alkyl,

Ethoxylated)

Transport Hazard Class(es)

Class: 8

Subsidiary risk: -

Packing group: II

Environmental Hazards:

Marine Pollutant: Yes

EmS: Not available.

Special precaution for user: Not available.

Transport in bulk according to Annex II of MARPOL

73/78 and the IBC Code: Not available.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Not applicable.

Chemical safety assessment:

A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

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16. OTHER INFORMATION

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and hazards connected with the use of the material are solely the responsibility of the user and remain at his sole discretion.