

MATERIAL SAFETY DATA SHEET

SECTION 1. PRODUCT IDENTIFICATION

Product Name: Furosemide

Chemical Formula: C₁₂H₁₁CLN₂O₅S

Synonym: **4-Chloro-N-(2-furylmethyl)-5-sulfamoylanthranilic acid**

Company Identification: Lasa Supergenerics Limited
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SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS#	Chemical Name	Percent by Weight
54-31-9	Furosemide	Min. 95.0 %

SECTION 3. HAZARD IDENTIFICATION

Potential Acute Health Effects: Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant).

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH. 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Not available. TERATOGENIC

EFFECTS: Not available. DEVELOPMENTAL TOXICITY:

Classified Reproductive system/toxin/female, Reproductive system/toxin/male, Development toxin [POSSIBLE]. The substance is toxic to kidneys, liver, bladder, cardiovascular system.

Repeated or prolonged exposure to the substance can produce target organs damage.

SECTION 4. FIRST AID

Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Skin Contact:

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing. Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation: Allow the victim to rest in a well ventilated area. Seek immediate medical attention. Serious Inhalation: Not available.

Ingestion:

Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

SECTION 5. FIRE AND EXPLOSION

Flammability of the Product: May be combustible at high temperature. Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...). Fire Hazards in Presence of Various Substances: Not available.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in

presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available

SECTION 6. ACCIDENTAL RELEASE MEASURES

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

SECTION 7. HANDLING AND STORAGE

Precautions:

Keep locked up Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable

protective clothing If ingested, seek medical advice immediately and show the container or the label.

Avoid contact with skin and eyes Keep away from incompatibles such as oxidizing agents, metals, acids. Storage:

Keep container dry. Keep in a cool place. Ground all equipment containing material. Carcinogenic, teratogenic or mutagenic materials should be stored in a separate locked safety storage cabinet or room.

SECTION 8. PERSONAL PROTECTION/EXPOSURE CONTROLS

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended

exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Solid. (Crystalline solid.)

Odor: Odorless.

Taste: Tasteless.

Molecular Weight: 330.75 g/mole

Color: Yellowish.

pH (1% soln/water): Not available.

Boiling Point: Not available.

Melting Point: 204°C (399.2°F)

Critical Temperature: Not

available. Specific Gravity: 2.1

(Water = 1) Vapor Pressure: Not

applicable. Vapor Density: Not

available. Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: Dispersed in methanol. Very slightly dispersed in cold water, diethyl ether.

See solubility in methanol, acetone.

Solubility: Soluble in methanol, acetone. Very slightly soluble in cold water, diethyl ether.

SECTION 10. REACTIVITY/STABILITY

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Reactive with oxidizing agents, metals, acids. Corrosivity: Not available.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available. Polymerization: No.

SECTION 11. TOXICOLOGICAL INFORMATION

Routes of Entry: Eye contact. Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 800 mg/kg

[Rabbit]. Chronic Effects on Humans:

CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH. 3 (Not classifiable for human.)

by IARC. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male,

Development toxin [POSSIBLE]. The substance is toxic to kidneys, liver, bladder, cardiovascular system. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant).

Special Remarks on Toxicity to Animals: Not available. Special

Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available

SECTION 13. DISPOSAL

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14. TRANSPORTATION

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

SECTION 15. REGULATORY INFORMATION

Federal and State Regulations:

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Furosemide California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Furosemide TSCA 8(b) inventory: No products were found.

Other Regulations: EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS

(Canada). DSCL (EEC):

R36/37/38- Irritating to eyes, respiratory system and skin. R40- Possible risks of irreversible effects.

R62-Possible risk of

impaired fertility. R63- Possible risk of harm to the unborn

child. HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 1

Reactivity: 0 Specific

hazard: Protective

Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent.

Splash goggles.

SECTION 16 - ADDITIONAL INFORMATION

This document is intended only as a guide to the appropriate precautionary handling of material by a person trained in chemical handling. The user is responsible for determining the precautions & dangers of this chemical for his or her particular application depending on usage. Adequate protective clothing, including eye / face guards, approved respirators must be used to avoid contact with the material or breathing chemical vapors / fumes. Exposure to this product may cause adverse health effects.

This chemical may interact with other substances. Since the potential uses are so varied, M/s. **Lasa Supergenerics Limited**. cannot warn of all of the potential dangers of use or interaction with chemicals of materials. M/s. **Lasa Supergenerics Limited**. warrants that, the chemical meets the specifications set forth on the test report.



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M/s. **Lasa Supergenerics Limited**. Disclaims any other warranties expressed or implied with regard to the product supplied hereunder its merchantability or its fitness for a particular purpose. The user should recognize that, this product can cause severe injury, especially if improperly handled or the known dangers of use are not heeded.

READ ALL PRECAUTIONARY INFORMATIONS.