

Multifunctional Extinguishing Additive with Encapsulating Technology

DANE Lithium Ion - Safety Data Sheet

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND COMPANY

Substance Identification

Commercial Name: DANE Lithium Ion

Product Description: Concentrated encapsulating agent for multi-class fire suppression.

Manufacturer/Distributor: Dane Corp

Address: 6187 NW 167 St. Suite H40, Miami, Florida 33015, USA

Tel: +1 (305) 364-8824

Email: info@danefoam

Website: www.danefoam.com

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Uses: Extinguishing Agent Concentrate.

Uses Advised Against: All uses not specified in this section or in section 7.3

1.3 Emergency Contact Numbers: +1 800 222 1222 (National Poison Center, available 24/7). It is recommended to have this product's safety data sheet on hand when contacting the poison center..

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the Substance or Mixture

According to Resolution SRT 801/2015 GHS:

- Causes eye irritation.
- Harmful to aquatic organisms, Category 3

Pictogram



Warning Word: Warning

POSSIBLE HEALTH EFFECTS:

EYE CONTACT: May cause tearing, redness, and burning.

SKIN CONTACT: Non-sensitizing (OECD 406). Frequent or prolonged contact may cause mild irritation and skin dryness.

INHALATION: Vapors and/or aerosols that may form at elevated temperatures can irritate the eyes and respiratory tract.

INGESTION: May cause gastrointestinal irritation/diarrhea.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Not applicable

3.2 Mixture:

Chemical Description: Aqueous solution of acids, alcohols, and amines; tallow alkyl, ethoxylated

Components:

The product contains:

Component CAS	CAS Number	Concentration
Amines, ethoxylated tallow alkyl	61791-26-2	<50%
Alcohols Mix	68603-15-6	< 30%
Ethylhexanoic Acids	149-57-5	< 30%

Exact concentration retained as a trade secret.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures:

Inhalation: Move the victim to fresh air. Obtain immediate medical attention for any breathing difficulty.

Skin Contact: Wash skin with soapy water. If irritation develops or persists, seek medical attention.

Eye Contact: Rinse eyes with running water for at least 10-15 minutes. If eye irritation persists, seek medical advice.

Ingestion: Do not induce vomiting. If the individual is conscious, give water to dilute stomach contents. Obtain immediate medical attention if ingested. Do NOT attempt to give anything orally to an unconscious person.

Main symptoms and effects, acute and delayed: See Section 11 - Toxicological Information.

4.2 Indication of Any Immediate Medical Attention and Special Treatment Needed:

Notes for the Physician: Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media:

Suitable Extinguishing Media: The product is a fire extinguishing agent and a non-flammable liquid.

Unsuitable Extinguishing Media: Data not available.

5.2 Firefighter Advice:

Depending on the fire's magnitude, full protective clothing and individual breathing equipment may be necessary. As per Directive 89/654/EEC, minimum emergency facilities and equipment (fire-resistant blankets, portable first-aid kit, etc.) should be available.

Additional Provisions:

Act according to the Internal Emergency Plan and Information Sheets on actions after an accident or emergency. Eliminate any ignition sources. In case of fire, cool containers and storage tanks holding flammable products susceptible to high temperatures, explosion, or BLEVE (Boiling Liquid Expanding Vapor Explosion). Prevent fire-extinguishing runoff from contaminating water sources.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures:

Isolate leaks if it poses no additional risk. Evacuate the area, and keep unprotected persons away. Use personal protective equipment against potential contact with the spilled product.

6.2 Environmental Precautions:

Keep the product away from drains, surface, and groundwater sources.

6.3 Methods and Materials for Containment and Cleaning Up:

Small Spills: Remove with sand or other non-combustible absorbent material and place in containers for later disposal.

Large Spills: Construct a dike far ahead of the spill for later disposal.

When used to mitigate a hazardous material, the resultant material should be handled as hazardous.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling:

A. Safe Handling Precautions: Follow current occupational safety regulations. Keep containers tightly closed. Control spills and waste, using safe disposal methods (see Section 6). Prevent leaks from the container. Maintain cleanliness in areas where hazardous products are used.

B. Technical Recommendations to Prevent Toxicological Risks: Do not eat or drink during use, washing hands afterward with appropriate cleaning products.

C. Technical Recommendations to Prevent Ergonomic and Toxicological Risks: Follow the same hygiene practices as B.

D. Technical Recommendations to Prevent Environmental Risks: Keep absorbent material close by (see subsection 6.3).

7.2 Conditions for Safe Storage, Including Incompatibilities:

A. Storage Conditions: Minimum temperature: 1.7°C, maximum temperature: 50°C.

B. General Storage Conditions: Avoid heat sources, radiation, static electricity, and contact with food. See subsection 10 for additional information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Appropriate Engineering Controls:

Use with adequate ventilation. For pressurized systems, establish procedures for selection, training, inspection, and maintenance of equipment. When used in large volumes, employ local exhaust ventilation.

Individual Protection

Respiratory Protection: Use respiratory protection if exposure risk exists, such as a full-face respirator approved by state or national regulation. The specific respirator selected should be based on workplace air concentration and should not exceed respirator working limits.

Skin Protection: Chemical-resistant gloves.

Eye/Face Protection: Chemical-resistant goggles with side shields.

Body Protection: Standard work clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Basic Physical and Chemical Properties:

For complete information, see the product technical sheet.

Appearance: Amber liquid with mild odor.

Physical State at 20°C: Liquid

Color: Amber

Odor: Characteristic

Density at 20°C: 0.97-1.01 g/cm³

pH: 6.9 - 7.1

Solubility: Highly water-soluble

Flash Point: Non-flammable (>93°C)

Vapor Pressure: 26.66 hPa at 25°C

Viscosity: 70 to 100 cPs

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: No hazardous reactions expected under recommended storage conditions.

10.2 Chemical Stability: Chemically stable under conditions of storage, handling, and use.

10.3 Possibility of Hazardous Reactions: Hazardous reactions causing excessive temperature or pressure are not expected.

10.4 Conditions to Avoid: Strong oxidizing agents.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Toxicological Effects: No experimental information on the product's toxicological properties is available.

Health Implications: Repeated or prolonged exposure at higher-than-recommended occupational limits may have adverse health effects, depending on the exposure route.

SECTION 12: ECOLOGICAL INFORMATION

Aquatic Toxicity - Fish: 96 hrs (LC50 Golden orfe (*Leuciscus idus*) 75 mg/L

Aquatic Toxicity - Crustaceans: 48 hrs (EC50 *Daphnia magna* STRAUS) 100 mg/L

Aquatic Toxicity - Algae: 72 hrs (EC50 Algae (*Desmodesmus subspicatus*) 60 mg/L

Microbial Toxicity in Activated Sludge (EC50): 3,000 mg/L

Persistence and Degradability: Fully biodegradable.

Bioaccumulation Potential: Not bioaccumulative.

Mobility in Soil: Data not available.

Other Adverse Effects: None known.

Waste Disposal: Dispose of content and/or container per local, regional, national, and/or international regulations. The product may be diluted to a 0.25% solution in water and processed in a municipal or industrial wastewater treatment plant containing activated sludge microorganisms for complete biodegradation.

SECTION 13: DISPOSAL CONSIDERATIONS

PLEASE REFER TO SECTIONS 6 AND 15 FOR DISPOSAL AND REGULATORY INFORMATION

SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport (ADR/RID, IMDG, IATA). This information is not exhaustive and may vary by container volume and regional regulations. The transport organization is responsible for compliance with applicable laws, regulations, and standards.

SECTION 15: REGULATORY INFORMATION

TSCA: All components are listed in the TSCA inventory.

CERCLA: Accidental spills of this product are not subject to any specific reporting requirements under the Comprehensive Environmental Response, Compensation, and Liability Act. Contact local authorities to verify other reporting requirements.

SARA Title III: This product does not contain materials regulated by SARA Title III, Section 313.

SECTION 15: OTHER INFORMATION

This Safety Data Sheet is prepared according to GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

SECTION 16: OTHER INFORMATION

Abbreviations and Acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Dangerous Goods Code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

COD: Chemical Oxygen Demand

BOD5: Biochemical Oxygen Demand (5 days)

BCF: Bioconcentration Factor

LD50: Median Lethal Dose

LC50: Median Lethal Concentration

EC50: Median Effective Concentration

Log-POW: Octanol-Water Partition Coefficient

Koc: Organic Carbon Partition Coefficient

The information provided in this product sheet is for informational purposes only. It does not constitute a guarantee. This product is manufactured under strict controls. When used and handled correctly, it poses no danger. DANE CORP cannot control the use of this product and therefore assumes no responsibility for consequences and damages arising from misuse.

Date: 13 de December de 2024.