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SAFETY DATA SHEET

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Product #: 460 delta-NONALACTONE FCC

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Bedoukian Research, Inc.
21 Finance Drive
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Danbury, CT 06810-4133
(International)
UNITED STATES

Emergency Phone Numbers:
1-800-424-9300 Chemtrec (North
1-703-527-3887 Chemtrec

Phone: 1-203-830-4000 Email: customerservice@bedoukian.com
Fax: 1-203-830-4010 Website: <http://www.bedoukian.com>

Product Code: 460
Product Name: delta-NONALACTONE FCC
Uses: flavors and fragrances

SECTION 2. HAZARDS IDENTIFICATION

HMIS HAZARD CLASSIFICATIONS

HEALTH = 1 FLAMMABILITY = 1 REACTIVITY = 0 PROTECTION = B

LABEL PRECAUTIONARY STATEMENTS

GHS CLASSIFICATION AND LABELLING

The following determinations per the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) have been made:

GHS SIGNAL WORD

No signal word is required for this material.

GHS SYMBOLS

No symbol is required for this material.

GHS LABELING/HAZARD STATEMENTS

No hazard statements are required for this material.

GHS LABELING/PRECAUTIONARY STATEMENTS

No precautionary statements are required for this material.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #: 3301-94-8
FEMA #: 3356 COE #: 2194
MF: C9H16O2
EC NO: 221-974-5

Minimum Purity: 98.0%

Additives: None

SYNONYM(S)

2H-Pyran-2-one, 6-butyltetrahydro-
5-Hydroxynonanoic acid, delta-lactone
5-Nonanolide
5-n-Butyl-d-valerolactone
6-Butyltetrahydro-2H-pyran-2-one
delta-Butyl-delta-valerolactone
delta-Butylvalerolactone

SECTION 4. FIRST-AID MEASURES

INHALATION EXPOSURE: Remove to fresh air. Give oxygen and call a physician.

EYE CONTACT: Flush with water for 15 min. Seek medical help if necessary.

SKIN CONTACT: Wash area well with water. Seek medical help if necessary.

INGESTION: Administer water and call a physician or poison control center immediately. Do not induce vomiting.

SECTION 5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

CO₂, FOAM, DRY CHEMICAL

SPECIAL FIRE FIGHTING PROCEDURES

Use standard fire fighting procedures.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None.

SECTION 6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

Standard absorbents can be used.

WASTE DISPOSAL METHOD: Incineration or sanitary landfill in accordance with local, state, and federal regulations.

SECTION 7. HANDLING AND STORAGE

HANDLING

Observe all warnings and precautions listed for the product.

Use in accordance with good manufacturing and industrial hygiene practices. Use product in a properly ventilated work area. Do not eat, drink or smoke while handling product.

STORAGE

Packaging: Glass, Plastic, Aluminum or Phenolic Lined Steel

Store tightly sealed under inert gas in a cool, well-ventilated area.

FIRE PROTECTION

Keep away from heat, sparks, and open flame.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: Local exhaust preferred. General ventilation required.
RESPIRATORY: Usually not required. Avoid inhaling concentrated vapors.
SKIN: Avoid skin contact. Use chemical resistant gloves.
EYES: Splash-proof safety glasses or goggles.
OTHER PROTECTIVE EQUIPMENT: Safety shower, eye wash

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid
APPEARANCE: colorless to pale yellow liquid
ODOR DESCRIPTION: coconut, creamy character.
BOILING POINT: 267.02 C (EPI 4.0)
VAPOR PRESSURE : 0.0067 mmHg (20C, EPI 4.0)
VAPOR DENSITY (Air = 1): > 1
SPECIFIC GRAVITY @ 25C (water = 1): 0.9800:0.9860
SOLUBILITY IN WATER: Insoluble in water; soluble in alcohol.
FLASH POINT (CC): 230 F 110 C
LOGP : 2.080

SECTION 10. STABILITY AND REACTIVITY

INCOMPATIBILITIES

CONDITIONS TO AVOID: Presents no special reactivity hazard.

MATERIALS TO AVOID: Strong oxidizing agents

HAZARDOUS COMBUSTION PRODUCTS

CO, CO₂, water

SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS

Most likely route of entry is through the skin.

Full strength may be irritating to skin and eyes.

IRRITATION DATA

10% in petrolatum produced no irritation or sensitization in humans.

TOXICITY DATA

LD50 Dermal (rabbit) > 5 g/kg. For similar delta-Decalactone.

LD50 Dermal (rabbit) > 5 g/kg. For similar delta-Octalactone.

LD50 Oral (rat) > 5 g/kg. For similar delta-Decalactone.

LD50 Oral (rat) > 5 g/kg. For similar delta-Octalactone.

S. typhimurium strains TA97a, TA98, TA100, TA102, TA1535 with and without S9: No effects, dosed up to 5 mg/plate. Vehicle dimethyl sulfoxide. For similar delta-Decalactone.

THRESHOLD LIMIT VALUE (TLV): Not established

OSHA PERMISSABLE EXPOSURE LIMIT (PEL): Not established

LISTED AS CARCINOGEN BY NTP, IARC, OR OSHA?: NO

SECTION 12. ECOLOGICAL INFORMATION

GENERAL

Prevent contamination of soil, ground- and surface water.

ECOTOXIC EFFECTS

Acute toxicity EC50 Freshwater Daphnia magna: 48 hours 50.7 mg/l 95% confidence interval of 44.7-57.5 mg/l. For similar delta-Decalactone. Biodegradation test (OECD 301B): 10 mg/l readily and ultimately biodegradable. 97.7% biodegradation after 28 days. For similar material delta-Decalactone.

SECTION 13. DISPOSAL CONSIDERATION

WASTE DISPOSAL METHOD: Incineration or sanitary landfill in accordance with local, state, and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Class	Pack Group	Sub. Risk	UN No.
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Road (U.S.-DOT):	not regulated.		
Air (IATA):	not regulated.		
Sea (IMDG):	not regulated.		

SECTION 15. REGULATORY INFORMATION

REVIEWS, STANDARDS, AND REGULATIONS

This chemical is listed on the following inventories:
TSCA AICS CHINA DSL ECL EINECS (221-974-5) ENCS PICCS
LISTED AS CARCINOGEN BY NTP, IARC, OR OSHA?: NO

SECTION 16. OTHER INFORMATION

DISCLAIMER OF WARRANTIES AND LIMITATION OF LIABILITY

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