

Material Safety Data Sheet



Section 1. Product and Company Identification

Product Name	EUS26-16 Insect Repellent Aerosol	Product Code	EUS26-16
Manufacturer	EMD Chemicals Inc. Pigments Division 7 Skyline Drive Hawthorne, NY 10532	Effective Date	1/26/2006
		Print Date	1/26/2006
For More Information Call	In Case of Emergency Call		
(914) 592-4660	800-424-9300 CHEMTREC (USA)		
M-F, 9AM-4:30 PM EST	613-996-6666 (Canada)		
	24 Hours/Day: 7 Days/Week		
Synonym	Not available.		
Material Uses	Insecticide.		
Chemical Family	Organic		

Section 2. Composition and Information on Ingredients

Component	CAS #	% by Weight
isobutane containing \geq 0.1% butadiene (203-450-8)	75-28-5	35
Denatured Alcohol	61116-08-3	21.67
3-[N-Butyl-N-acetyl]-aminopropionic acid ethyl ester	52304-36-6	20
WATER	7732-18-5	17.26
PROPYLENE GLYCOL	57-55-6	4.34
acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone	25086-89-9	1.73

Section 3. Hazards Identification

Physical State and Appearance	Liquid. (Slightly yellowish liquid with alcoholic odor)
Emergency Overview	HARMFUL IF SWALLOWED. MAY CAUSE HERITABLE GENETIC EFFECTS. CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: CENTRAL NERVOUS SYSTEM. FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTENTS UNDER PRESSURE. DO NOT STORE AT TEMPERATURES ABOVE 120° F.
Routes of Entry	Dermal contact. Eye contact. Inhalation. Ingestion.
Potential Acute Health Effects	
	<i>Eyes</i> May be hazardous in case of eye contact (irritant).
	<i>Skin</i> NO known EFFECT according to our database.
	<i>Inhalation</i> May be hazardous in case of inhalation (lung irritant).
	<i>Ingestion</i> Hazardous in case of ingestion.
Potential Chronic Health Effects	
	<i>Carcinogenic Effects</i> This material is not known to cause cancer in animals or humans.
	Additional information See Toxicological Information (section 11)

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Medical Conditions Aggravated by Overexposure:	Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.
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Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Section 5. Fire Fighting Measures

Flammability of the Product	Product will burn.
Auto-ignition Temperature	The lowest known value is 371.11°C (700°F) (PROPYLENE GLYCOL).
Flash Points	Closed cup: 25°C (77°F).
Flammable Limits	The greatest known range is LOWER: 2.5% UPPER: 12.6% (PROPYLENE GLYCOL)
Products of Combustion	These products are carbon oxides (CO, CO ₂), nitrogen oxides (NO, NO ₂ ...).
Fire Hazards in Presence of Various Substances	Highly flammable in presence of open flames, sparks and static discharge, of shocks, of heat.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of static discharge: Highly flammable in presence of open flames, sparks and static discharge. Risks of explosion of the product in presence of mechanical impact: Highly flammable in presence of shocks.
Fire Fighting Media and Instructions	In case of fire, use water spray (fog), foam, dry chemical, or CO ₂ .
Protective Clothing (Fire)	Wear self-contained breathing apparatus and full protective clothing.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Not available.

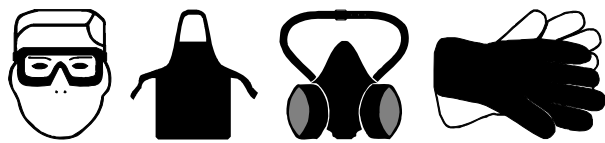
Section 6. Accidental Release Measures

Small Spill and Leak	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill and Leak	Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.
Spill Kit Information	No specific spill kit required for this product.

Section 7. Handling and Storage

Handling	Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. CONTENTS UNDER PRESSURE. DO NOT STORE AT TEMPERATURES ABOVE 120° F.
Storage	Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Section 8. Exposure Controls/Personal Protection

Engineering Controls	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	
	<i>Eyes</i> Splash goggles.
	<i>Body</i> Synthetic apron.
	<i>Respiratory</i> Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
	<i>Hands</i> Impervious gloves.
	<i>Feet</i> Not applicable.
Protective Clothing (Pictograms)	
Personal Protection in Case of a Large Spill	Splash goggles. Synthetic apron. Nitrile gloves. Wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.

Product Name	Exposure Limits
isobutane containing $\geq 0.1\%$ butadiene (203-450-8)	United States, 1/2004). Notes: ACGIH 2004 Adoption TWA: 1000 ppm 8 hour(s). Form: All forms NIOSH REL (United States, 12/2001). TWA: 1900 mg/m ³ 10 hour(s). Form: All forms TWA: 800 ppm 10 hour(s). Form: All forms
Denatured Alcohol	Not available.
3-[N-Butyl-N-acetyl]-aminopropionic acid ethyl ester	Not available.
WATER	Not available.
PROPYLENE GLYCOL	NOHSC (Australia, 7/2003). TWA: 10 mg/m ³ 8 hour(s). Form: Particulate TWA: 474 mg/m ³ 8 hour(s). Form: Vapor and particulates TWA: 150 ppm 8 hour(s). Form: Vapor and particulates NAOSH (Ireland, 3/2002). OELV: 10 mg/m ³ 8 hour(s). Form: Particulate OELV: 470 mg/m ³ 8 hour(s). Form: Sum of vapor and particulates OELV: 150 ppm 8 hour(s). Form: Sum of vapor and particulates Del Lietuvos Higienos Normos (Lithuania, 12/2001). TWA: 7 mg/m ³ 8 hour(s). Form: All forms NZ OSH (NZ, 1/2002). TWA: 10 mg/m ³ 8 hour(s). Form: Particulate TWA: 474 mg/m ³ 8 hour(s). Form: Vapor and particulates TWA: 150 ppm 8 hour(s). Form: Vapor and particulates EH40-OES (United Kingdom (UK), 5/2003). TWA: 10 mg/m ³ 8 hour(s). Form: Particulate TWA: 474 mg/m ³ 8 hour(s). Form: Sum of vapor and particulates

TWA: 150 ppm 8 hour(s). Form: Sum of vapor and particulates
AIHA WEEL (United States, 1/2004). Notes: 2004 Revised
Document

TWA: 10 mg/m³ 8 hour(s). Form: All forms
Not available.

acetic acid ethenyl ester, polymer with
1-ethenyl-2-pyrrolidinone

Section 9. Physical and Chemical Properties

Odor	Alcohol like.
Color	Slightly Yellowish.
Physical State and Appearance	Liquid. (Slightly yellowish liquid with alcoholic odor)
Molecular Weight	Not applicable.
Molecular Formula	Not applicable.
pH	6.7 [Neutral.]
Boiling/Condensation Point	The lowest known value is 100°C (212°F) (WATER). Weighted average: 117.55°C (243.6°F)
Melting/Freezing Point	May start to solidify at 0°C (32°F) based on data for: WATER. Weighted average: -12.06°C (10.3°F)
Specific Gravity	Weighted average: 0.59 (Water = 1)
Vapor Pressure	The highest known value is 101.3 kPa (760 mmHg) (at 20°C) (WATER).
Vapor Density	The highest known value is 598 (Air = 1) (WATER). Weighted average: 478.37 (Air = 1)
Odor Threshold	Not available.
Evaporation Rate	0.01 (PROPYLENE GLYCOL) compared to Butyl acetate.
LogK _{ow}	Not available.
Solubility	Partially soluble in water.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	Not available.
Incompatibility with Various Substances	Not available.
Hazardous Decomposition Products	Not available.
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

RTECS Number:	Isobutane	TZ4300000
	Denatured Alcohol	Not available.
	Ethyl Butylacetylaminopropionate	Not available.
	Water	ZC0110000
	Propylene Glycol	TY2000000
	PVP/VA Copolymer	AH3539000
Toxicity		

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Acute oral toxicity (LD₅₀): >630 mg/kg [Rat]. (acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone).

Acute dermal toxicity (LD₅₀): 20800 mg/kg [Rabbit]. (PROPYLENE GLYCOL).

Chronic Effects on Humans

Slightly hazardous in case of skin contact (irritant, sensitizer), of eye contact (irritant), of ingestion, of inhalation (lung irritant).

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Classified 2 by European Union [isobutane containing >= 0.1% butadiene (203-450-8)].

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

The substance is toxic to central nervous system (CNS).

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

Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Acute Effects on Humans

May be hazardous in case of eye contact (irritant). May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Non-permeator by skin. May be hazardous in case of inhalation (lung irritant). Hazardous in case of ingestion.

Synergetic Products (Toxicologically)

Not available.

Irritancy

Draize Test: Not available.

Sensitization

Caution - preparation not yet fully tested.

Carcinogenic Effects

This material is not known to cause cancer in animals or humans.

Toxicity to Reproductive System

Not available.

Teratogenic Effects

Not available.

Mutagenic Effects

Classified 2 by European Union [isobutane containing >= 0.1% butadiene (203-450-8)].

Section 12. Ecological Information**Ecotoxicity**

Not available.

BOD5 and COD

Not available.

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

Section 13. Disposal Considerations**EPA Waste Number**

Type: Hazardous chemical waste.
Classification: DOO1

Treatment

Dispose of according to all federal, state and local regulations.

Section 14. Transport Information**DOT Classification**

Proper shipping name: Flammable liquid, n.o.s.
(Denatured Alcohol)

Hazard class: 3

UN number: UN1993

Packing Group: II

ERG (Emergency Response Guide) No.: 128

Additional information: -

**TDG Classification**

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Proper shipping name: Flammable liquid, n.o.s.
(Denatured Alcohol)

Hazard class: 3

UN number: UN1993

Packing Group: II

Additional information: No additional remark.



**IMO/IMDG
Classification**

Proper shipping name: Flammable liquid, n.o.s.
(Denatured Alcohol)

Hazard class: 3

UN number: UN1993

Packing Group: II

Additional information: No additional remark.

**ICAO/IATA
Classification**

Proper shipping name: Flammable liquid, n.o.s.
(Denatured Alcohol)

Hazard class: 3

UN number: UN1993

Packing Group: II

Additional information: No additional remark.

Section 15. Regulatory Information

U.S. Federal Regulations

TSCA 8(b) inventory: For Research & Development Use Only.
 SARA 302/304/311/312 extremely hazardous substances: No products were found.
 SARA 302/304 emergency planning and notification: No products were found.
 SARA 302/304/311/312 hazardous chemicals: PROPYLENE GLYCOL; isobutane containing
 >= 0.1% butadiene (203-450-8)
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: PROPYLENE
 GLYCOL: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; isobutane
 containing >= 0.1% butadiene (203-450-8): Fire Hazard, Sudden Release of Pressure
 SARA 313 Form R Reporting Requirements- No products were found.
 SARA 313 Supplier Notification- No products were found.
 Clean Water Act (CWA) 307: No products were found.
 Clean Water Act (CWA) 311: No products were found.
 Clean air act (CAA) 112 accidental release prevention: isobutane containing >= 0.1%
 butadiene (203-450-8)
 Clean air act (CAA) 112 regulated flammable substances: isobutane containing >= 0.1%
 butadiene (203-450-8)
 Clean air act (CAA) 112 regulated toxic substances: No products were found.

WHMIS (Canada)

Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).
 Class D-2B: Material causing other toxic effects (TOXIC).
 This product has been classified in accordance with the hazard criteria of the Controlled
 Product Regulations and the MSDS contains all required information.

CEPA DSL: For Research & Development Use Only.

International Regulations

EINECS	isobutane containing >= 0.1% butadiene (203-450-8)	200-857-2
	Denatured Alcohol	Not available.
	3-[N-Butyl-N-acetyl]-aminopropionic acid ethyl ester	257-835-0
	WATER	231-791-2
	PROPYLENE GLYCOL	200-338-0
	acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone	Not available.

DSCL (EEC)

R10- Flammable.
 R45- May cause cancer.
 R46- May cause heritable genetic damage.

International Lists For Research & Development Use Only.

State Regulations

Pennsylvania RTK: PROPYLENE GLYCOL: (generic environmental hazard); isobutane containing $\geq 0.1\%$ butadiene (203-450-8): (generic environmental hazard)
Massachusetts RTK: isobutane containing $\geq 0.1\%$ butadiene (203-450-8)
New Jersey: isobutane containing $\geq 0.1\%$ butadiene (203-450-8)

California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (female) which would require a warning under the statute: No products were found.

Section 16. Other Information**Hazardous Material
Information System
(U.S.A.)**

Health	*	2
Fire Hazard		3
Reactivity		0
Personal Protection		J

**National Fire
Protection
Association
(U.S.A.)****Other Special
Considerations**

Not available.

**Changed Since Last
Revision****Notice to Reader**

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