Bear Shield

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 06/22/2015 Revision date: 02/02/2016 Supersedes: 06/22/2015 Version: 5.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Trade name : Bear Shield

Product code : 225gr - 8oz, 400gr - 14oz

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Bear Deterrent Spray

Use advised against : None identified

1.3. Details of the supplier of the safety data sheet

Guardian Protective Devices, Inc.
154 Cooper Rd., Unit 703
West Berlin, NJ 08091

Tel: 1-856-753-5007

1.4. Emergency telephone number

Emergency number : 1-800-535-5053 (account 90377)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Compressed gas H280
Skin Irrit. 2 H315
Eye Irrit. 2A H319

Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :

GHS04 GHS07

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H280 - Contains gas under pressure; may explode if heated
H315 - Causes skin irritation
H319 - Causes serious eye irritation

Precautionary statements (GHS-US) : P264 - Wash hands thoroughly after handling
P280 - Wear eye protection, protective gloves, protective clothing
P302+P352 - If on skin: Wash with plenty of water
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P410+P403 - Protect from sunlight. Store in a well-ventilated place

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
trans-1,3,3,3-Tetrafluoroprop-1-ene	(CAS No) 29118-24-9	30 - 60	Liquefied gas, H280
Diethylene glycol monobutyl ether	(CAS No) 112-34-5	20 - 30	Flam. Liq. 4, H227 Eye Irrit. 2A, H319
1,2-Propylene glycol	(CAS No) 57-55-6	20 - 30	Not classified
Resins, oleo-, capsicum	(CAS No) 8023-77-6	10 - 20	Skin Irrit. 2, H315 Eye Irrit. 2A, H319

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow breathing of fresh air. Allow the victim to rest. Give artificial respiration if necessary. If symptoms persist, call a physician. Do not use epinephrine.

First-aid measures after skin contact : Remove contaminated clothing. Flush with water for at least 15 minutes. Wash with plenty of soap and water. Wash contaminated clothing before reuse. Do not cover affected areas with creams or ointments for at least 6 hours.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Drink large quantities of water. Do not induce vomiting. Take immediately to a hospital or physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after skin contact : May cause skin irritation to sensitive parts upon direct contact

Symptoms/injuries after eye contact : May cause superficial keratitis and conjuctivitis.

Symptoms/injuries after inhalation : May cause irritation to lungs

Symptoms/injuries after ingestion : May cause irritation to stomach

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry powder. Carbon dioxide. Water spray.

Unsuitable extinguishing media : None known

5.2. Special hazards arising from the substance or mixture

Fire hazard : Avoid exposure to extreme heat. Pungent fumes may be emitted on exposure to temperatures exceeding 175º F (80º C)

Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Contents will discharge under fire conditions. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Gloves. Eye protection.

Emergency procedures : In case of spill, extinguish all flames. Absorb on appropriate sorbant material. Dispose of in proper waste receptacle.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Ventilate area. Absorb on appropriate sorbant material. Dispose of in proper waste receptacle poperly labeled.

6.4. Reference to other sections

See Heading 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour. Handle with care. Keep out of the reach of children.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash hands, forearms and face thoroughly after handling. Smoking in work areas is prohibited.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store below 120ºF (49 ºC) in shipping container provided. Keep only in the original container in a cool, well-ventilated place.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Diethylene glycol monobutyl ether (112-34-5)		
ACGIH	ACGIH TWA (ppm)	10 ppm (inhalable fraction and vapor)

8.2. Exposure controls

Personal protective equipment : Protective goggles. Gloves. Insufficient ventilation: wear respiratory protection.

Hand protection : Wear protective gloves.

Eye protection : Wear chemical resistant goggles or face shield.

Skin and body protection : Wear suitable protective clothing. Use solvent resistant materials with full jacket

Respiratory protection : Use chemical respirator, NIOSH Approved only.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : Yellowish/Amber

Odor : Medicinal/ Pungent, Highly Irritating

Odor threshold : No data available

pH : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : Not applicable

Freezing point : > 0 °F (-18 °C)

Boiling point : 400 °F (204 °C) (Initial Bp)

Flash point	:	> 200 °F (93 °C) (Method SW846 1010)
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Not applicable
Vapor pressure	:	80 Psia
Relative vapor density at 20 °C	:	No data available
Relative density	:	1.2 (water=1)
Solubility	:	Negligible Water: Solubility in water of component(s) of the mixture : • Diethylene glycol monobutyl ether: 1000 g/l (at 25 °C)
Log Pow	:	No data available
Log Kow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	Not applicable
Oxidising properties	:	Not applicable
Explosive limits	:	Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Will decompose above 250 ºF (121 ºC).

10.2. Chemical stability

Stable at ambient temperatures.

10.3. Possibility of hazardous reactions

Hazardous polymerization may occur if exposure to fire conditions.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

No additional information available.

10.6. Hazardous decomposition products

Decomposition products include hydrofluoric acid and fluorophosgene. Irritating fumes will also be present. Hazardous thermal decomposition products may form such as carbon monoxide, carbon dioxide, and other toxic and corrosive gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Diethylene glycol monobutyl ether (112-34-5)	
LD50 oral rat	5660 mg/kg
LD50 dermal rabbit	2700 mg/kg
ATE US (oral)	3384.000 mg/kg bodyweight
ATE US (dermal)	2700.000 mg/kg bodyweight
1,2-Propylene glycol (57-55-6)	
LD50 oral rat	20 g/kg
LD50 dermal rabbit	20800 mg/kg
ATE US (oral)	20000.000 mg/kg bodyweight
ATE US (dermal)	20800.000 mg/kg bodyweight
Trans-1,3,3,3-Tetrafluoroprop-1-ene (29118-24-9)	
LC50 inhalation rat (mg/l)	207000 g/m³ (Exposure time: 4 h)

Resins, oleo-, capsicum (8023-77-6)	
LD50 oral rat	> 3 g/kg
LC50 inhalation rat (mg/l)	> 10000 g/m³ (Exposure time: 4 h)

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/injuries after skin contact : Skin contact may cause frostbite due to the propellant (Short Term Effects).

Symptoms/injuries after inhalation : High inhaled amounts may cause dizzines, unconsciousness, and asphyxia (Short Term Effects). May cause a general allergic reaction to sensitive individuals.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Diethylene glycol monobutyl ether (112-34-5)	
LC50 fish 1	1300 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	> 100 mg/l (Exposure time: 48 h - Species: Daphnia magna)
1,2-Propylene glycol (57-55-6)	
LC50 fish 1	51600 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 2	41 - 47 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

12.2. Persistence and degradability

Not established.

12.3. Bioaccumulative potential

Not established.

Diethylene glycol monobutyl ether (112-34-5)	
BCF fish 1	(no bioconcentration expected)
1,2-Propylene glycol (57-55-6)	
BCF fish 1	< 1

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on ozone layer : No additional information available

Effect on the global warming : No additional information available

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with all federal, state, and local Environmental laws and regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Transport document description : UN1950 Aerosols (non-flammable, (each not exceeding 1 L capacity)), 2.2

UN-No.(DOT) : UN1950

Proper Shipping Name (DOT) : Aerosols
non-flammable, (each not exceeding 1 L capacity)

Class (DOT) : 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115

Hazard labels (DOT) : 2.2 - Non-flammable gas

DOT Packaging Exceptions (49 CFR 173.xxx) : 306

DOT Packaging Non Bulk (49 CFR 173.xxx) : None

DOT Packaging Bulk (49 CFR 173.xxx) : None

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 75 kg

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 150 kg

DOT Vessel Stowage Location : A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel

DOT Vessel Stowage Other : 25 - Shade from radiant heat,87 - Stow ‘‘separated from’’ Class 1 (explosives) except Division 14,126 - Segregation same as for Class 9, miscellaneous hazardous materials

Additional information

Emergency Response Guide (ERG) Number : 126

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

UN-No. (IATA) : 8000

Proper Shipping Name (IATA) : Consumer commodity

Class (IATA) : 9 - Miscellaneous Dangerous Goods

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Diethylene glycol monobutyl ether (112-34-5)	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule

1,2-Propylene glycol (57-55-6)	
EPA TSCA Regulatory Flag	Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule

15.2. International regulations

CANADA

Diethylene glycol monobutyl ether (112-34-5)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

1,2-Propylene glycol (57-55-6)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

Trans-1,3,3,3-Tetrafluoroprop-1-ene (29118-24-9)
Listed on the Canadian DSL (Domestic Substances List)

Resins, oleo-, capsicum (8023-77-6)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Diethylene glycol monobutyl ether (112-34-5)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

1,2-Propylene glycol (57-55-6)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

1,1,1,2-Tetrafluoroethane (811-97-2)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Compressed gas H280
Skin Irrit. 2 H315
Eye Irrit. 2 H319

15.2.2. National regulations

Diethylene glycol monobutyl ether (112-34-5)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the Canadian IDL (Ingredient Disclosure List) Listed on INSQ (Mexican national Inventory of Chemical Substances) Listed on CICR (Turkish Inventory and Control of Chemicals)

1,2-Propylene glycol (57-55-6)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the Canadian IDL (Ingredient Disclosure List) Listed on INSQ (Mexican national Inventory of Chemical Substances) Listed on CICR (Turkish Inventory and Control of Chemicals)

Trans-1,3,3,3-Tetrafluoroprop-1-ene (29118-24-9)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on INSQ (Mexican national Inventory of Chemical Substances) Listed on CICR (Turkish Inventory and Control of Chemicals)

Resins, oleo-, capsicum (8023-77-6)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Indication of changes	:	2.1. Classification of the substance or mixture. 2.2. Label elements.
Revision date	:	02/02/2016
Other information	:	None.

Full text of H-statements:

------	H227	Combustible liquid
------	H280	Contains gas under pressure; may explode if heated
------	H315	Causes skin irritation
------	H319	Causes serious eye irritation

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