Bug Barrier II
Safety Data Sheet (SDS)

Created on: 10 December 2013
Revised on: 28 May 2014

SECTION 1: Identification

(1a) Product identifier (trade name):

Product Name : Bug Barrier II

(1b) Other means of identification:

Generic Name or Description : Insect Repellent Spray with 25% DEET
EPA Registration Number: : 7754-41

(1c) Recommended use and restrictions on use:

Please read label for appropriate directions for use.

(1d) Name, address, and telephone number of the responsible party:

Company : ARI
Address : P.O. Box 510
Orchard Hill, GA 30266
Telephone : 770.227.8222
Fax : 770.227.9190
Email : info@aripackaging.com
Website : Aripackaging.com

(1e) Emergency phone number:

Chemtrec : +1.800.424.9300

SECTION 2: Hazard Identification

(2a) Classification of the product:

Physical Hazards : Flammable Aerosol, category 2
Gas Under Pressure, dissolved
Health Hazards : Eye Irritation, category 2A
Skin Irritation, category 2
Specific Target Organ Toxicity – Single Exposure, category 3
Other Hazards :

(2b) Labeling elements:

Hazard Pictograms :



Signal Word : **WARNING**

Hazard Statement(s) :
Flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
Causes skin irritation.
May cause drowsiness or dizziness.

Precautionary Statement(s)

Prevention :
Keep away from heat, open flames, and hot surfaces.-No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Wash hands thoroughly after handling.
Wear eye protection.
Wear protective gloves.
Avoid breathing spray.
Use only outdoors or in a well-ventilated area.
KEEP OUT OF REACH OF CHILDREN

Response :
IF IN EYES: 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.
IF ON SKIN: Wash with plenty of water.
If skin irritation occurs: Get medical advice.
Take off contaminated clothing and wash it before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a doctor if you feel unwell.

Storage : Protect from sunlight.
Do not expose to temperatures exceeding 122°F(50°C).
Store in a well-ventilated place.
Store locked up.

Disposal : Dispose of container to recyclables when completely emptied.

***Note: Labeling elements found on the SDS may be different from actual hazards listed on product label. Safety Data Sheets are regulated by OSHA (29 CFR, 1910.1200 (Hazard Communication)) while the actual product and product label may be regulated by a different government entity. Please contact the responsible party (as listed in Section 1) if you have any questions.**

****Note: A full list of H- and P-phrases can be found in Section 16 of this SDS.**

(2c) Hazards not otherwise classified:

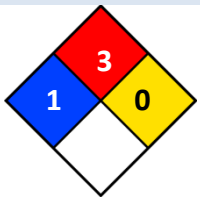
No other hazards are associated with this product or mixture

(2d) Unknown acute toxicity components:

No unknown acute toxicity components are associated with this product or mixture.

(2e) NFPA & HMIS Ratings:

NFPA
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme (Scale 0-4)) :



HEALTH: 1
FLAMMABILITY: 3
REACTIVITY: 0

HMIS® III
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme (Scale 0-4)) :

HEALTH	1
FIRE	3
PHSYICAL HAZARD	2

SECTION 3: Composition and Information on Ingredients

(3a) Classification of the product:

Chemical Name:	Identifier (CAS No.):	Concentration:	Specific Hazards:
DEET (N, N-Dithyl-m-toulamide)	134-62-3	23.75%	
N-octyl bicycloheptene dicarboximide	113-48-4	5%	Not Hazardous
Di-n-Propyl isocinchomeronate	136-45-8	2.5%	Not Hazardous
Isopropyl Alcohol	67-63-0	30-60%	

(3b) Trade Secret Claims and Notes:

Trade Secret Claim : When applicable, the specific concentration of each hazardous ingredient is considered a TRADE SECRET. Chemical names and identifiers are released to ensure that each user has entitlements of “right to know” and concentration ranges are selected to ensure that the appropriate hazard classification applies to the mixture. Ingredients not subject to Trade Secret claims are listed at an exact concentration. For more information please contact the responsible party as listed in Section 1.

Notes : This product may contain other ingredients that are not required to be disclosed on the label or safety data sheet. Any ingredient that is not listed on either the SDS or label is not considered hazardous and poses no risk to the user.

SECTION 4: First Aid Measures

(4a) Necessary measures if exposed:

GENERAL INFORMATION : Have SDS or product label if medical advice is needed. Seek a medical professional or doctor if you feel unwell or if any irritation persists. Specific hazard information can be found in Section 2 of this SDS.

IF ON SKIN (or hair) : Wash with soap and water. Take off any contaminated clothing and launder before reuse.

IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 10 minutes or until satisfied.

IF INHALED	:	Move to fresh air. Administer oxygen if breathing is difficult. If breathing has stopped give artificial respiration and seek medical attention immediately.
IF INGESTED (or swallowed)	:	Do not induce vomiting unless instructed to do so by a medical professional. Never give anything by mouth to an unconscious person.

(4b) Most important exposure symptoms and effects, both acute and delayed:

Skin contact symptoms	:	Product may dry and crack skin. If irritation/corrosion occurs skin will turn red and will feel itchy or uncomfortable.
Eye contact symptoms	:	Eye sight may become blurry on contact. Redness, irritation, and tearing may also be associated with exposure.
Inhalation symptoms	:	Excessive inhalation may cause respiratory irritation, dizziness, drowsiness, fatigue, nausea, headache, possible unconsciousness, shortness of breath, or vertigo.
Ingestion symptoms	:	May cause intestinal irritation, nausea, diarrhea, or vomiting. Aspiration may be fatal in some situations.

(4c) Indication of immediate medical attention if necessary:

Refer to Section 2b-Response to determine when immediate medical attention is necessary. Most immediate emergencies result from over-exposure, inhalation, or ingestion of product.

SECTION 5: Fire Fighting Measures

(5a) Extinguishing media:

Suitable extinguishing media	:	Dry chemical, sand, or carbon dioxide after spray has stopped If extinguishing methods are unavailable cool the container with water if exposed to heat or flame. Remove the container from fire area if it can be done without further risk.
Unsuitable extinguishing media	:	None known

(5b) Specific hazards pertaining to product:

Fire Hazard	:	Product concentrate is considered flammable and will act as a fuel to fire even if Section 2 does not explicitly state that the product is flammable.
Explosion/Combustion Hazard	:	Contents under pressure. May explode if exposed to heat greater than 122°F or 50°C

(5c) Special protective equipment and precautions for fire-fighters:

Suggested protective equipment	:	No suggested equipment is available for recommendation
Precautions for fire-fighters	:	Contents may be heavier than air if released. Containers may explode and rapidly release pressure resulting in the potential for additional hazards.

SECTION 6: Accidental Release Measures

(6a) Personal precautions, protective equipment, and emergency procedures:

If released or spilled	:	Remove or eliminate all sources of ignition. Establish ventilation to keep atmospheric concentrations below limits. Avoid breathing vapors. Wear protective equipment. Remove and keep all unprotected persons away from area.
Recommended protective equipment	:	See section 8 for appropriate personal protection gear for safe handling in case of accidental release or spillage.

(6b) Methods and materials for containment and clean up:

Neutralizing chemical	:	Absorb into clay-like absorbent material
Waste disposal method	:	Do not release into sewage or waterways. Contact a professional waste removal company to dispose of chemical in accordance with state, local, and federal regulations.

SECTION 7: Handling and Storage

(7a) Precautions for safe handling:

Wear protective equipment. Follow specific instructions found on label and in Section 2 of this SDS. Proper protective equipment information can be found in Section 8 of this SDS.

(7b) Conditions for safe storage:

Storage conditions	:	Store locked up in a well-ventilated area. Protect container from sunlight. **Never** store in a vehicle. Do not expose to temperatures above 122°F or 50°C. Keep away from heat and other sources of ignition. Keep away from oxidizing agents and watery environments. Store upright without excessive load on top.

Specific hazards for storage : Contents are under pressure; may explode if heated.

SECTION 8: Exposure Controls & Personal Protection

(8a) Exposure Limits:

Chemical Name:	Identifier (CAS No.):	PEL:	ACGIH:	NIOSH:
DEET (N, N-Dithyl-m-toulamide)	134-62-3	N/A	N/A	N/A
Isopropyl Alcohol	67-63-0	400 ppm	400 ppm	500 ppm

(8b) Appropriate engineering controls:

Good mechanical ventilation may be adequate for maintain airborne concentrations below established exposure limits for large uncontrolled releases. If exposure limits are exceeded and inhaled: use a NOISH approved respirator.

(8c) Individual protection measures and personal protective equipment:

Skin protection :  Handle material with gloves and protective clothing. Inspect gloves prior to use. Use proper glove removal techniques so that no skin comes into contact with the outside of the glove. Gloves must be chemically resistant (such as rubber).

Eye protection :  Use NIOSH/OSHA or EN 166 approved eye protection

General Hygiene :  Practice good industrial hygiene. Wash hands before breaks and at the end of the workday. Keep product away from foodstuffs, beverages, and feed. Wash and launder all contaminated clothing before reuse.

SECTION 9: Physical and Chemical Properties

(9a) General characteristics:

Appearance	:	Pale yellow tint
Odor	:	Slight aromatic odor
Odor threshold	:	No data are available or specific property is not applicable to product.
pH	:	No data are available or specific property is not applicable to product.
Melting point/freezing point	:	No data are available or specific property is not applicable to product.
Initial boiling point and range	:	181.4°F
Flash point	:	53°F
Evaporation rate	:	No data are available or specific property is not applicable to product.
Flammability	:	Flammable gas and liquid
Flame extension distance	:	> 1cm
Upper/lower explosive limits	:	LEL: 2.5% ; UEL: Not determined
Vapor pressure	:	No data are available or specific property is not applicable to product.
Vapor density	:	No data are available or specific property is not applicable to product.
Relative density	:	0.862
Solubility	:	70% soluble
Partition coefficient	:	No data are available or specific property is not applicable to product.
Auto-ignition temperature	:	No data are available or specific property is not applicable to product.
Decomposition temperature	:	No data are available or specific property is not applicable to product.
Viscosity	:	No data are available or specific property is not applicable to product.

(9b) Other information:

VOC percentage : No data are available or specific property is not applicable to product.

SECTION 10: Stability and Reactivity

(10a) Reactivity:
Not determined or not applicable.

(10b) Chemical stability:
Stable under normal conditions.

(10c) Possibly of hazardous reactions:
Can not occur.

(10d) Conditions to avoid:
Heat, sparks, open flames, ignition sources, sunlight, and watery or moist environments.

(10e) Incompatible materials:
Strong oxidizing agents.

(10f) Hazardous decomposition:
Not determined or not applicable.

SECTION 11: Toxicological Information

(11a) Likely routes of exposure:
Toxicological exposure may occur via inhalation, ingestion, oral contact, and dermal contact based on the area exposed during use. Symptoms are more likely to increase the longer the exposure to the chemical.

(11b) Symptoms related to the physical, chemical, and toxicological characteristics:
DEET (CAS: 134-62-3) : Skin and eye irritation.
Isopropyl Alcohol (CAS: 67-63-0) : Mild eye, nose, and throat irritation.

(11c) Delayed, chronic, and immediate effects of short- and long-term exposure:
Not determined or not applicable.

(11d) Numerical measures of toxicity:
DEET (CAS: 134-62-3) : LD50 Oral – rat : 1,950mg/kg
LC50 Inhalation – rat : 5,5950 mg/m³
LD50 Dermal – rat : 5,000 mg/kg
Isopropyl Alcohol (CAS: 67-63-0) : LD50 Oral – rat : 5,045 mg/kg
LD50 Dermal – rabbit : 12,800 mg/kg

(11e) Hazardous chemicals listings:
National Toxicology Program Report : No ingredients are listed

International Agency for Research on Cancer : Isopropyl Alcohol (CAS: 67-63-0) – Group 3: Not classifiable as to its carcinogenicity to humans

SECTION 12: Ecological Information

(12a) Ecotoxicity:
Product is not considered an environmental hazard. Avoid release of mixture in sewage or waterways.

(12b) Persistence and degradability:
Not determined or not applicable.

(12c) Bioaccumulative potential:
Not determined or not applicable.

(12d) Mobility in soil:
Not determined or not applicable.

(12e) Other adverse effects:
Not determined or not applicable.

SECTION 13: Disposal Considerations

(13a) Precautions for proper disposal:

Container may be recycled. Before recycling: ensure container is completely emptied by pressing, and holding, the nozzle button until all the contents of the container are released. Continue to hold button down until any remaining gas has escaped the container. Never open an aerosol container. Contact your local waste removal company before recycling to ensure compliance with local regulations.

(13b) Other information:

Consult with a licensed waste removal company for proper disposal considerations. Dispose of product in accordance to local, state, and federal regulations.

SECTION 14: Transport Information

(14a) United Nations shipping information:

UN shipping number	:	1950
UN proper shipping name	:	Aerosol

(14b) United States Department of Transportation information:

Transport hazard class	:	2.1
D.O.T. shipping name	:	Flammable Gas
D.O.T. classification	:	ORM-D (Until 2020) or Limited Quantity
Flammability group	:	Level 3 Aerosol
Shipping placards	:	

(14c) Other information:

Environmental hazards	:	Is not hazardous to aquatic environments
International bulk chemical code	:	Not determined
Special precautions	:	Ship container upright without excessive load on top

SECTION 15: Regulatory Information

(15a) United States federal regulations:

SARA 302 components	:	No ingredients are subject to reporting
SARA 313 components	:	Isopropyl Alcohol (CAS: 67-63-0)

(15b) Specific state regulations:

Massachusetts Right to Know	:	Isopropyl Alcohol (CAS: 67-63-0) Propane (CAS: 74-98-6) Isobutane (CAS: 75-28-5)
New Jersey Right to Know	:	Isopropyl Alcohol (CAS: 67-63-0) DEET (CAS: 134-62-3) Propane (CAS: 74-98-6) Isobutane (CAS: 75-28-5)
Pennsylvania Right to Know	:	Isopropyl Alcohol (CAS: 67-63-0) DEET (CAS: 134-62-3) Propane (CAS: 74-98-6) Isobutane (CAS: 75-28-5)
California Prop 65 components	:	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.
California ARB classification	:	

(15c) Regulating government agencies:

Safety Data Sheet	:	OSHA, 29 CFR 1910.1200 of the United States Code.

Product and Product Label	:	EPA, 40 CFR of the United States Code.
Note	:	The product label and its wording and symbols may differ from the hazard categories, statements, and wording that are presented in this SDS. This might occur if the product is not subject to OSHA labeling requirements or if the product is regulated by a different government agency (such as the Consumer Product Safety Commission, Food and Drug Administration, or the Environmental Protection Agency. The label may also indicate additional hazards or precautions that are not listed on this safety data sheet—this is done at the discretion of the responsible party and only serves to ensure that the user's safety is prioritized above government regulation.

SECTION 16: Other Information

(16a) Statement of warranty:

This SDS was completed using the most up-to-date information available at the time of its completion using a variety of credited information sources and scientific databases on chemical hazards—however; no representation, warranty, or guarantee is made to the SDS's accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself/herself as to the suitability and completeness of such information for his or her particular use. We do not accept any liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement. The SDS does not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship: explicit or implied. The product associated with this SDS has undergone limited testing and all hazards, besides flammability testing, are assumed from the individual ingredients in the mixture, diluted for potency. For a list of hazardous ingredients please refer to Section 3 of this SDS. It is the SDS's objective to provide as much information on the mixture as possible so that users can become more educated to the specific hazards associated with the product's use; however, this does not imply that the SDS is finalized as to its hazard classifications—as such, it is imperative that users ensure that this SDS is updated when a new version becomes available. For more information please contact the responsible party which can be found in Section 1 of this SDS.

(16b) List of H- and P-phrases used (GHS 3rd edition):

H-Phrases :

H223: Flammable aerosol
H280: Contains gas under pressure; may explode if heated
H315: Causes skin irritation
H319: Causes serious eye irritation
H336: May cause drowsiness or dizziness

P-Phrases :

P102: Keep out of reach of children
P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
P211: Do not spray on an open flame or other ignition source
P251: Pressurized container – Do not pierce or burn, even after use
P261: Avoid breathing dust/fume/gas/mist/vapours/spray
P264: Wash … thoroughly after handling
P271: Use only outdoors or in a well-ventilated area
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+352: IF ON SKIN: Wash with soap and water
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P312: Call a POISON CENTER or doctor/physician if you feel unwell
P332+313: If skin irritation occurs: Get medical advice/attention
P337+313: If eye irritation persists get medical advice/attention
P362: Take off contaminated clothing and wash before reuse
P403: Store in a well-ventilated place
P405: Store locked up
P410: Protect from sunlight
P412: Do not expose to temperatures exceeding 50 °C/122 °F
P501: Dispose of contents/container to …

(16c) Date of preparation and revision:

Please refer to the top right corner of the first page of this SDS for appropriate creation and revision dates. It is the user's responsibility to ensure that the SDS kept on file is the most up-to-date version of the SDS.