

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

1.1. Product identifier

Name of the substance VELVETONE
Identification number 68555-94-2 (CAS number)
Registration number -
Synonyms (* Alt. CAS #) CAS: 72117-72-7; dimethyl alpha-ionone * 1-Penten-3-one, 2-methyl-1-(2,2,6-trimethylcyclohexenyl)- * DIMETHYL IONONE * Dimethylionone * VELVETONE
BRI Product Code 470
Issue date 05-29-2015
Version number 01

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

Identified uses fragrance
 For Manufacturing Use Only

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

Uses advised against Not for use in Tobacco or Nicotine delivery device applications and/or products.

1.3. Details of the supplier of the safety data sheet

Supplier

Company name Bedoukian Research
Address 21 Finance Drive
 Danbury, CT 06810
 US

Division

Telephone 1-203-830-4000
e-mail customerservice@bedoukian.com
Contact person Not available.

1.4. Emergency telephone number
 Chemtrec (North America) 1-800-424-9300
 Chemtrec (International) 1-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification N;R51/53

The full text for all R-phrases is displayed in section 16.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.
Skin sensitization	Category 1B	H317 - May cause an allergic skin reaction.

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 2	H411 - Toxic to aquatic life with long lasting effects.
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Hazard summary

Physical hazards Not classified for physical hazards.
Health hazards Not classified for health hazards.
Environmental hazards Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Specific hazards None known.

Main symptoms

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

2.2. Label elements**Label according to Regulation (EC) No. 1272/2008 as amended****Contains:**

VELVETONE

Hazard pictograms**Signal word**

Warning

Hazard statements

H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements**Prevention**

P261 Avoid breathing mist or vapor.
 P264 Wash thoroughly after handling.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P273 Avoid release to the environment.
 P280 Wear protective gloves.
 P280 Wear eye/face protection.

Response

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.
 P333 + P313 If skin irritation or rash 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.
 P391 Collect spillage.

Storage

Store away from incompatible materials.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information

None.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients**3.1. Substances****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
VELVETONE	100	68555-94-2 271-463-6	-	-	
Classification:		DSD: N;R51/53			
		CLP: Skin Irrit. 2;H315, Skin Sens. 1B;H317, Eye Irrit. 2;H319, Aquatic Chronic 2;H411			

Stabilizers

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
synthetic alpha tocopherol	0,1	10191-41-0 233-466-0	-	-	

List of abbreviations and symbols that may be used above

CLP: Regulation No. 1272/2008.

DSD: Directive 67/548/EEC.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

#: This substance has been assigned Community workplace exposure limit(s).

Composition comments Occupational Exposure Limits for stabilizers are listed in Section 8. The full text for all R- and H-phrases is displayed in section 16.

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

6.3. Methods and material for containment and cleaning up Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Recommended Packaging: Glass, Plastic, Aluminum or Phenolic Lined Steel. Store tightly sealed under inert gas in a cool, well-ventilated area.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

No exposure limits noted for ingredient(s).

Biological limit values

No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures

Follow standard monitoring procedures.

Derived no-effect level (DNEL)

Not available.

Predicted no effect concentrations (PNECs)

Not available.

8.2. Exposure controls

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

General information

Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection

Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection

- Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

- Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Hygiene measures

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

Environmental exposure controls

Inform appropriate managerial or supervisory personnel of all environmental releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state

Liquid.

Color

colorless to pale yellow

Odor

powdery, woody, orris-violet odor.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

543,78 °F (284,32 °C) US EPA. 2014. Estimation Programs Interface Suite™ for Microsoft® Windows, v 4,11. US EPA, Washington, DC, USA.

Flash point

252 °F (122 °C) Pensky-Martens or Grabner Miniflash

Evaporation rate

Not available.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Vapor pressure 0,00284 mmHg at 20°C; US EPA. 2014. Estimation Programs Interface Suite™ for Microsoft® Windows, v 4,11. US EPA, Washington, DC, USA.

Vapor density 7,6 Relative to air; air = 1

Relative density Not available.

Solubility(ies)

Solubility (water) Not available.

Solubility (other) Not available.

Partition coefficient (n-octanol/water) 5,2 US EPA. 2014. Estimation Programs Interface Suite™ for Microsoft® Windows, v 4,11. US EPA, Washington, DC, USA.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Explosive properties Not available.

Oxidizing properties Not available.

9.2. Other information

Density 0,92 - 0,93 g/cm3

Molecular formula C15H24O

Molecular weight 220,36

Specific gravity 0,92 - 0,93 at 25°C

SECTION 10: Stability and reactivity

10.1. Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability Material is stable under normal conditions.

10.3. Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid Contact with incompatible materials.

10.5. Incompatible materials Strong oxidizing agents.

10.6. Hazardous decomposition products No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation No adverse effects due to inhalation are expected.

Skin contact Causes skin irritation. May cause an allergic skin reaction.

Eye contact Causes serious eye irritation.

Ingestion May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

11.1. Information on toxicological effects

Acute toxicity May cause an allergic skin reaction.

Product	Species	Test Results
VELVETONE (CAS 68555-94-2)		
<u>Acute</u>		
Dermal		
<i>Liquid</i>		
LD50	Rabbit	> 5000 mg/kg Result for similar material alpha-iso-Methyilonone.

Product	Species	Test Results
Oral <i>Liquid</i> LD50	Rat	> 5000 mg/kg Result for similar material alpha-iso-Methylionone.

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.	
Irritation Corrosion - Skin VELVETONE		100 % Patch test, Well-defined erythema in 8/8 rabbits; slight (6/8 rabbits) to moderate edema (2/8 rabbits) and skin cracking (6/8 rabbits) were observed. Result for similar material alpha-Isomethylionone. Result: Irritation noted. Species: Rabbit Organ: Skin Observation Period: 72 Hours
Serious eye damage/eye irritation	Causes serious eye irritation.	
Irritation Corrosion - Eye VELVETONE		12,5 %, Vehicle unknown. Intense conjunctival irritation involving chemosis and discharge that cleared by day 7; no corneal opacity or iris congestion. result for similar material alpha-Isomethylionone. Result: Irritation noted. Species: Rabbit Organ: Eye Observation Period: 7 days
Respiratory sensitization	Due to partial or complete lack of data the classification is not possible.	
Skin sensitization	May cause an allergic skin reaction.	
Skin sensitization VELVETONE		LLNA, Under the conditions of the test, the test material in Ethanol:Diethyl phthalate (1:3) was classified as a likely sensitizer. Result for similar material alpha-Isomethylionone. Result: Sensitization noted. Species: Guinea pig Organ: Skin
Germ cell mutagenicity	Due to partial or complete lack of data the classification is not possible.	
Germ cell mutagenicity: Ames test VELVETONE		< 9300 µg/plate, Strains TA 98, TA 100, TA 1535, TA 1537 and TA 1538 with and without metabolic activation. Vehicle DMSO. Result for similar a-iso-Methylionone. Result: Not mutagenic. Species: Salmonella typhimurium Notes: RIFM
Carcinogenicity	Due to partial or complete lack of data the classification is not possible.	
Reproductive toxicity	Due to partial or complete lack of data the classification is not possible.	
Specific target organ toxicity - single exposure	Due to partial or complete lack of data the classification is not possible.	
Specific target organ toxicity - repeated exposure	Due to partial or complete lack of data the classification is not possible.	
Aspiration hazard	Due to partial or complete lack of data the classification is not possible.	
Mixture versus substance information	No information available.	
Other information	Not available.	

SECTION 12: Ecological information

12.1. Toxicity Toxic to aquatic life with long lasting effects.

Product	Species	Test Results
VELVETONE (CAS 68555-94-2)		
Aquatic <i>Acute</i> Crustacea	EC50 Daphnia	3,7 mg/l, 48 Hours Result for similar alpha-Isomethylionone.

Product	Species	Test Results
Fish	LC50 Danio rerio	5,3 mg/l, 96 Hours Result for similar alpha-Isomethylionone.

* Estimates for product may be based on additional component data not shown.

12.2. Persistence and degradability No data is available on the degradability of this product.

12.3. Bioaccumulative potential

**Partition coefficient
n-octanol/water (log Kow)**
VELVETONE

5,2, US EPA. 2014. Estimation Programs Interface Suite™ for MicroEPA, Washington, DC, USA.

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment Not available.

12.6. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Special precautions Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number UN3082
14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-Penten-3-one, 2-methyl-1-(2,2,6-trimethylcyclohexenyl)-)
14.3. Transport hazard class(es)
Class 9
Subsidiary risk -
Label(s) 9
Hazard No. (ADR) 90
Tunnel restriction code E
14.4. Packing group III
14.5. Environmental hazards No.
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

RID

14.1. UN number UN3082
14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-Penten-3-one, 2-methyl-1-(2,2,6-trimethylcyclohexenyl)-)
14.3. Transport hazard class(es)
Class 9
Subsidiary risk -
Label(s) 9
14.4. Packing group III
14.5. Environmental hazards No.
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

ADN

14.1. UN number	UN3082
14.2. UN proper shipping name	Environmentally Hazardous Liquid, N.o.s. (1-Penten-3-one, 2-methyl-1-(2,2,6-trimethylcyclohexenyl)-)
14.3. Transport hazard class(es)	
Class	9
Subsidiary risk	-
Label(s)	9
14.4. Packing group	III
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number	UN3082
14.2. UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (1-Penten-3-one, 2-methyl-1-(2,2,6-trimethylcyclohexenyl)-)
14.3. Transport hazard class(es)	
Class	9
Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	No.
ERG Code	9L
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

IMDG

14.1. UN number	UN3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-Penten-3-one, 2-methyl-1-(2,2,6-trimethylcyclohexenyl)-)
14.3. Transport hazard class(es)	
Class	9
Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-F
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.

ADN; ADR; IATA; IMDG; RID



SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I, as amended
Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorizations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended

Not listed.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding, as amended

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances

Not listed.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended

Not listed.

Directive 94/33/EC on the protection of young people at work, as amended

Not listed.

Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations

Follow national regulation for work with chemical agents.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

IFRA restriction

There is an IFRA guideline regarding this product. Please visit www.ifraorg.org for the full text of the guideline, or contact Bedoukian Research, Inc. for more information.

SECTION 16: Other information

List of abbreviations

Not available.

References

Not available.

Information on evaluation method leading to the classification of mixture

Not applicable.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

Revision information

None.

Training information

Follow training instructions when handling this material.

Disclaimer

BRI cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

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