

Safety Data Sheet

BV-179

SDS Revision Date:

012/17/2015



1. Identification

1.1. Product identifier

Product Identity BV-179
Alternate Names BV-179

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

Intended use See Technical Data Sheet.
Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Broadview Technologies
7-33 Amsterdam Street
Newark, NJ 07105

Emergency

CHEMTREC (USA) (800) 424-9300
Customer Service: Broadview Technologies (973)-465-0077

Section 2 – HAZARDS IDENTIFICATION

GHS Classification

Physicochemical Hazards	Explosives Out of category Flammable liquids Out of category Self-reactive substances and mixtures Out of category Pyrophoric liquids Out of category
Health Hazards	Acute toxicity – oral Out of category Acute toxicity – dermal Out of category Acute toxicity – inhalation (mist) Out of category Skin corrosion/irritation Out of category Serious eye damage/eye irritation Out of category Sensitization – skin Category 1 Germ cell mutagenicity Out of category
Environmental Hazards	Hazard to the aquatic environment (acute hazard) Category 3 Other hazards than mentioned above are Not applicable or No data available.

GHS Label Elements

Symbols



Signal Word Warning
Hazard Statements H317 May cause an allergic skin reaction

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Precautionary Statements	H402 Harmful to aquatic life
Prevention Statements	Avoid breathing mist, vapors and spray.(P261) Contaminated work clothing should not be allowed out of the workplace.(P272) Avoid release to the environment.(P273)
Response Precautionary Statements	Wear protective gloves.(P280) Take off contaminated clothing and wash it before reuse.(P362+P364)
Disposal Precautionary Statements	IF ON SKIN: Wash with plenty of soap and water.(P302+P352) Specific treatment.(P321) If skin irritation or rash occurs, get medical advice and attention.(P333+P313) Dispose of contents and container in accordance with local, regional and national regulations (to be specified).(P501)

Section 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Distinction of Substance or Mixture

substance

Chemical name or generic name

(3',4'-Epoxy cyclohexane)methyl 3,4-epoxycyclohexylcarboxylate

Chemical Name or Generic Name	Concentration or Its Ranges	Formula	CAS RN
(3',4'-Epoxy cyclohexane)methyl 3,4-epoxycyclohexylcarboxylate	≥97%	C14H20O4	2386-87-0

Impurities and/or Stabilizing Additives which Contribute to the Classification

No information available

Section 4 – FIRST AID MEASURES

Inhalation

Remove person to fresh air and keep comfortable for breathing.
Immediately call a doctor.
IF exposed or concerned: Get medical advice and attention.

Skin Contact

Take off or dispose of all polluted clothes.
Rinse skin with water or shower.
Immediately call a doctor.

Eye Contact

Get medical advice and attention.
Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do.
Continue rinsing.
Immediately call a doctor.

Ingestion

Get medical advice and attention.
Rinse mouth. Do NOT induce vomiting.
Immediately call a doctor.
Get medical advice and attention.

Section 5 – FIRE FIGHTING MEASURES

Extinguishing Media

Small fires: Dry chemical, dry sand, alcohol-resistant foam.
Large fire: Dry chemicals, alcohol-resistance foam extinguishing agents and water sprinkling.

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Unsuitable Extinguishing Media
Specific Hazards

Straight streams.

Fire may produce irritating, corrosive and/or toxic gases.

Contaminated fire fighting water or dilution water are corrosive and/or toxic and may cause damage to a person concerned with fire extinguishing. May be ignited by heat, sparks or flames.

Specific Fire Fighting

Use extinguishing agent suitable for type of surrounding fire.

Move containers from fire area if you can do it without risk.

Protection of Fire Fighter

In fire fighting, wear respiratory protection and chemical protective clothing.

Section 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions,
Protective Equipment and
Emergency Procedures

Keep unauthorized personnel away.

Wear appropriate personal protective equipment (Refer to "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION") and avoid inhalation or contact with eyes and skin.

Isolate the site as a leak area by providing a zone that has an appropriate width to all directions.

Keep out of low areas.

Stay upwind.

Do not touch or walk through spilled material.

Pay attention not to cause the influence on the environment by discharging into rivers.

Stop leak if you can do it without risk.

A vapor suppressing foam may be used to reduce vapors.

Environmental
Precautions
Methods and Equipment
for Containment and
Cleaning up

All equipment used when handling the product must be grounded.

Small spills; absorb or cover with dry earth, sand or other non-combustible material and transfer to containers for later disposal.

Small spills; Use clean non-sparking tools to collect absorbed material.

Large spills; prevent flowing out with a dike and collect it at a safe place.

Prevention Measures for
Secondary Accidents

Removes all ignition sources promptly. (Prohibition of smoking, sparks, and flames in the surrounding area).

Isolate flammables (such as wood, paper, and oil) from the leakage.

Prevent flowing into drain, sewage, basement, and closed area.

Section 7 – HANDLING AND STORAGE

Handling

Technical Measures

Provide ventilation system and use necessary personal protective equipment as described in "Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION".

Precautions for Safe
Handling

Do not handle until all safety precautions have been read and understood.

Handle at a well-ventilated place.

Avoid release to the environment.

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Do not get in eyes, on skin or on clothing.
 Ventilate the exhaust to keep the concentration in the air below the exposure limit.
 Obtain special instructions before use.
 Use properly by reading "Precautions for Use" labeled on the container before use or disposal.
 Wash hand thoroughly after handling.
 Prohibit use of heat, sparks, and fire in the surrounding area.
 Do not contact, breathe or swallow.
 Do not expose to temperatures exceeding appropriate temperature.
 Do not breathe dust and fume.
 Do not handle containers with such manners as tumbling down, falling, exposing to shock, or dragging.

Storage Precautionary Statements	<p>Prevents Handling of Incompatible Substances or Mixtures</p> <p>Specific Hygiene Measures</p> <p>Technical Measures</p>	<p>Refer to "Section 10 – STABILITY AND REACTIVITY".</p> <p>Wash hand thoroughly after handling.</p> <p>The storage facility should be provided with necessary lighting, lighting equipment, and ventilator to store and handle dangerous goods. The storage floor should have penetration-proof construction against dangerous goods and be inclined adequately. A proper sump should be provided to catch any spills. The roof of a storage facility should be made of a non-combustible material and use metals or other lightweight non-combustible materials. No ceiling should be installed. The storage facility should be designed with fire-proof construction and beams should use a non-combustible material. Refer to "Section 10 – STABILITY AND REACTIVITY". Store away from incompatible materials. Store locked up. Have containers keep away from direct sunlight and heat. Store in a well-ventilated and cool place keeping container tightly closed. Use containers prescribed in the "Fire Service Law (Japan)" and the "UN Transport Regulations".</p>
	Material Used in Packaging/ Containers	

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits	Exposure Limits (ACGIH)
(3,4'-epoxycyclohexane) methyl 3,4epoxycyclohexyl-carboxylate	Not established

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Engineering Controls

Workplace storing or handling this product should be equipped with eye washing station and safety shower.
Use process enclosures, local exhaust ventilation, or other engineering controls.
Install ventilation system to keep exposure to airborne contaminants below the exposure limit if vapor, fume, mist generates in the process handling at elevated temperature.
Take precautionary measures against static discharge.
Use explosion-proof electrical, ventilating and lighting equipment.
Install explosion-proof local ventilation equipment.
Ground or bond container and receiving
Wear respiratory protection.

Personal Protective Equipment

Respiratory Protection
Hand Protection
Eye Protection

Skin and Body Protection

Wear protective gloves.
Protection glasses (ordinary glasses, ordinary glasses with side shields, and goggles).
Wear protective clothing and face protection.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Form	liquid
	Color	colorless or light yellow
Odor		characteristic
Odor threshold		No data available
pH		No data available
Melting Point/Freezing Point		No data available
Initial Boiling Point and Boiling Ranges		No data available
Flash Point		202°C (Cleveland Open Cup)
Evaporation Rate		No data available
Flammability (solid, gas)		No data available
Flammability or Explosive Limits	Lower Limit	No data available
	Upper Limit	No data available
Vapor Pressure		No data available
Vapor Density		No data available
Specific Gravity (Density)		1.172
Partition Coefficient : n-Octanol/Water		No data available
Auto-Ignition Temperature		375°C
Decomposition Temperature		Kickoff temperature 288°C
Viscosity		No data available
Kinematic viscosity		No data available
Other Property		Surface tension 61.00mN/m

Section 10 – STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	Stable under ordinary conditions of use and storage.
Possibility of Hazardous Reaction	Contact with strong oxidizers, strong alkalis, or strong acids may cause fire and explosions.
Conditions to Avoid	Fire, heat, incompatibles.

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Incompatible Substances
or Mixtures
Hazardous Decomposition
Products

Strong oxidizers, strong alkalis, strong acid.

Carbon dioxide and carbon monoxide may form
when heated to decomposition.

Section 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity Oral
Dermal
Inhalation (mist)

Out of category: LD50 > 5000mg/kg (Rat)
Out of category: LD50 > 2000mg/kg (Rabbit)
Out of category: LDLo > 5.19mg/L (4hr, Rat)
Out of category: Skin irritation test (4hr, 500mg,
rabbit); mild, P.I.I.=1.35.

Skin Corrosion/Irritation

Out of category: Eye irritation test (rabbit); no-
irritation.

Serious eye damage/eye
irritation

Respiratory or Skin
Sensitization

Category 1; Skin sensitization test (Maximization
Test, Guinea pig); positive, LLNA-DA method
(TG442A simplified test method); positive (weak
sensitization).

Germ Cell Mutagenicity

Out of category: From the result of Mammalian
Erythrocyte Micronucleus Test (in vivo somatic
cell mutagenicity tests in mammals, TG474) :
negative. Ames test : positive, In vivo unscheduled
DNA synthesis (UDS) test (TG486) : negative.

Section 12 – ECOLOGICAL INFORMATION

Hazard to the aquatic
environment (acute
hazard)

Category 3; Based on LC50=24mg/L (96hr,
Oncorhynchus mykiss).

Hazard to the aquatic
environment (long-term
hazard)

No data available

Ecotoxicity

LC50=24mg/L (96hr, Oncorhynchus mykiss)

Hazard to the ozone layer

No data available

Section 13 – DISPOSAL CONSIDERATIONS

Residual Waste

Commission a waste disposal company, or a local
public body who are licensed by local or regional
government, to dispose of the material.
Disposal should be in accordance with applicable
regulations and standards by the respective local
governments.

Contaminated Container
and Packaging

When commissioning the disposal to a disposal
company, notify the danger and toxicity thoroughly
to the company.

In case of disposal of empty containers, remove
the content thoroughly.

Recycle containers after cleansing, or carry out
the disposal under the related laws and regulations
and the standards of the local governments.

Section 14 – TRANSPORT INFORMATION

International Regulations Regulatory
Information by Sea
Marine Pollutant

Not applicable

Not applicable

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Emergency Response Guide Number	Transport in bulk according to MARPOL 73/78, Annex II, and the IBC code Regulatory Information by Air	Not applicable Not applicable Not applicable
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Section 15 – REGULATORY INFORMATION

Details of international registration status

ENCS(Japan); 3-2452
TSCA(USA); Listed
Reach(EU); Listed
DSL(Canada); Listed
ECL(Korea); KE27441
IECSC(China); Listed
ECN(Taiwan); Listed
PICCS(Philippines); Listed
NZIoC(New Zealand); Listed
AICS(Australia); Listed

Section 16 – OTHER INFORMATION

Information Contact
Other Property

See Sec.1 (Company identification)
Notice to Reader : To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of information contained herein.
Final determination of suitability of any material is the sole responsibility of the information contained herein.
All materials may present unknown hazards and should be used with caution.
Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.