

CANON OPTRON INC.

SDS Number: EC08
 Product Name: Cryolite

SAFETY DATA SHEET

rev. 7.2 Date of Issue 2015/1/13
 Revised Date 2022/10/3

SECTION 1 Chemicals and company identification

Product name	Cryolite
Product code	EC08
Company name	CANON OPTRON INC.
Address	1744-1, Kanakubo, Yuki-shi, Ibaraki-ken, 307-0015 Japan
Section name	Sales Department
Telephone number	+81-296-21-3700
Fax number	+81-296-21-3770
Emergency telephone number	+81-296-21-3700
Use	Vacuum deposition material

SECTION 2 Hazards identification

GHS Classification (A classification by JIS Z 7252 "classification methods such as chemical substances based on GHS")

Physical hazards	Explosives	Classification not possible
	Flammable gases	Not applicable
	Aerosols	Not applicable
	Oxidizing gases	Not applicable
	Gas under pressure	Not applicable
	Flammable liquids	Not applicable
	Flammable solids	Classification not possible
	Self-reactive substances and mixtures	Classification not possible
	Pyrophoric liquids	Not applicable
	Pyrophoric solids	Classification not possible
	Self-heating substances and mixtures	Classification not possible
	Substances and mixtures which, in contact with water, emit flammable gases	Classification not possible
	Oxidizing liquids	Not applicable
	Oxidizing solids	Classification not possible
	Organic peroxides	Classification not possible
	Corrosive to metals	Classification not possible
	Desensitize explosives	Classification not possible
Health hazards	Acute toxicity(oral)	Classification not possible
	Acute toxicity(dermal)	Classification not possible
	Acute toxicity (Inhalation: Gases)	Not applicable
	Acute toxicity (Inhalation: Vapors)	Category 4

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	Acute toxicity (Inhalation: Dusts and mists)	Category 4
	Skin corrosion/irritation	Classification not possible
	Serious eye damage/eye irritation	Classification not possible
	Respiratory sensitization	Classification not possible
	Skin sensitization	Classification not possible
	Germ cell mutagenicity	Classification not possible
	Carcinogenicity	Classification not possible
	Reproductive toxicity	Classification not possible
	Reproductive toxicity, effects on or via lactation	Classification not possible
	Specific target organ toxicity(single exposure)	Classification not possible
	Specific target organ toxicity(repeated exposure)	Category 1
	Aspiration hazard	Classification not possible
Environmental hazards	Hazardous to the aquatic environment Short-term(acute)	Classification not possible
	Hazardous to the aquatic environment Long-term(chronic)	Category 2
	Hazardous to the ozone layer	Classification not possible

Label elements

hazard Pictograms



Signal word

Danger

Dangerous goods hazard information

Harmful if inhaled.
Causes damage to organs through prolonged or repeated exposure No organ information.

Precautionary statements

【Safety measures】

Do not breathe dust/fume/gas/mist/vapours/spray.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.

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【First-aid measures】	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call poison center or doctor/physician if you feel unwell. Get medical advice/attention if you feel unwell. Collect spillage.
【Storage】	—
【Disposal】	Dispose of contents/container in accordance with national regulations.
【Other hazards】	—

SECTION 3 Composition/information on ingredients

Substance/Mixture	Substance
Chemical name	Cryolite
Chemical formula	Cryolite(Na_3AlF_6)
Concentration or concentration range	99.9%<
CAS No.	15096-52-3
TSCA Inventory	Cryolite ($Na_3(AlF_6)$)
EINECS number	239-148-8
Radioactive information	Radioactive substances are not used as the material. Therefore, there is no reason that ionizing radiation would be generated.

SECTION 4 First aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse affected areas with water/shower. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: : Get medical advice/attention.
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.
Ingestion	Rinse mouth. Get medical advice/attention.
Most important symptoms and effects, both acute and delayed	No data available
Protection of first aiders	Rescuers, wear suitable protective equipment as the situation demands.
Special precautions for physicians	No data available

SECTION 5 Firefighting measures

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Suitable extinguishing media	This product itself is not flammable.
Unsuitable extinguishing media	No data available
Specific hazards	No data available
Specific extinguishing methods	In the case of a fire in the periphery, the portable container is quickly moved to a safe place.
Special protective equipment for firefighters	Wear suitable protective equipment (gloves, glasses and a mask) in fire-fighting.

SECTION 6 Accidental release measures

Personal precautions, protective equipment, and emergency procedures	Protection equipment (specified as those in which the properties of the product are suitable) worn during operation so that airborne droplets, etc., do not adhere to the skin and dusts and gases are not absorbed.
Environmental precautions	The leakage may not directly flow into rivers or sewage.
Methods and material for containment and cleaning up	The leaked material is scooped up, or swept up and gathered to be recovered in a paper bag or a drum. After recovery, a small amount of the residue is absorbed in sediment, sawdust, etc.
Secondary disaster prevention measures	No data available

SECTION 7 Handling and storage

Precautions for safe handling	
Technical measures	Take measures for equipment as described in "8. Exposure controls/personal protection" and wear protective equipment.
Safety handling precautions	Handling work must be practiced in a room where there is a local or total ventilation facility.
Avoidance of contact	Refer to "10. Stability and reactivity."
Hygiene measures	Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.
Conditions for safe storage, including any incompatibilities	
Safe storage conditions	Store in a well-ventilated place. Keep container tightly closed.
Safety packaging material	No data available

SECTION 8 Exposure controls/personal protection

Cryolite(Na3AlF6)

Permissible concentration

ACGIH

No data available

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Appropriate engineering controls Use sealed devices, equipment, or a local exhaust ventilation as much as possible.

Individual protection measures,
 such as personal protective
 equipment

Respiratory protection	Dustproof mask
Hand protection	Protective gloves
Eye/face protection	Dust-proof glasses
Skin protection	Protective clothing

SECTION 9 Physical and chemical properties

Appearance

Physical state	Solid
Form	Granular
Colour	White
Odour	None

Cryolite(Na₃AlF₆)

Melting point/freezing point	1000 °C
Boiling point or initial boiling point and boiling range	No data available
Flammability	No data available
Upper/lower flammability or explosive limits	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	No data available
Kinematic viscosity	No data available
Solubility	
Water	No data available
Other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Vapour pressure	No data available
Density and/or relative density (Density)	2.95

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Relative vapor density	<i>No data available</i>
Particle characteristics	<i>No data available</i>
Other information	<i>No data available</i>

SECTION 10 Stability and reactivity

Cryolite(Na₃AlF₆)

Reactivity	<i>No data available</i>
Chemical stability	<i>It is stable in storage conditions and normal handling.</i>
Possibility of hazardous reactions	<i>No data available</i>
Conditions to avoid	<i>High-temperature and humidity</i>
Incompatible materials	<i>No data available</i>
Hazardous decomposition products	<i>It occurs with fluorine gas, hydrogen fluoride gas when It heat.</i>

SECTION 11 Toxicological information

Cryolite(Na₃AlF₆)

Acute toxicity(oral)	<i>Oral – Rat LD50: >5g/kg Oral – Rat LDLo: 9g/kg</i>
Acute toxicity(dermal)	<i>No data available</i>
Acute toxicity (Inhalation: Gases)	<i>No data available</i>
Acute toxicity (Inhalation: Vapours)	<i>No data available</i>
Acute toxicity (Inhalation: Dusts and mists)	<i>No data available</i>
Skin corrosion/irritation	<i>No data available</i>
Serious eye damage/irritation	<i>No data available</i>
Respiratory or skin sensitization	<i>Nose, throat, trachea is stimulated by inhalation of dust.</i>
Germ cell mutagenicity	<i>No data available</i>
Carcinogenicity	<i>No data available</i>
Reproductive toxicity	<i>No data available</i>
Specific target organ toxicity(single exposure)	<i>No data available</i>
Specific target organ toxicity(repeated exposure)	<i>No data available</i>
Aspiration hazard	<i>No data available</i>
Other information	<i>No data available</i>

SECTION 12 Ecological information

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Toxicity

Hazardous to the aquatic
 environment Short-
 term(acute)

No data available

Hazardous to the aquatic
 environment Long-
 term(chronic)

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Hazard to the ozone layer

No data available

Other adverse effects

No data available

SECTION 13 Disposal considerations

Waste treatment methods

Process is contracted to industrial waste disposers who received approval of a prefectural governor.

Contaminated container and
 contaminated packaging

The container is recycled after being cleaned, or is appropriately processed according to the standards of related laws and regulations.
 When disposing of empty containers, the contents should be completely removed.

SECTION 14 Transport information

Cryolite(Na₃AlF₆)

International regulation

UN number

Not applicable

UN proper shipping name

Not applicable

UN classification

Not applicable

Transport hazard class

Not applicable

Packing group

Not applicable

Hazardous to the aquatic
 environment

No data available

Maritime transport in bulk
 according to IMO instruments

No data available

Japanese laws and regulations

No data available

Special precautions for users

No data available

Special Provisions

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SECTION 15 Regulatory information (Japan)

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Cryolite(Na₃AlF₆)

Occupational Safety and Health Law	No data available
PRTR Law	No data available
Poisonous and Deleterious Substances control Law	No data available
Labor Standards Act	No data available
Chemical substances control Law	No data available
Fire fighting Law	No data available
Air Pollution Control Act	No data available
Water Pollution Prevention Act	No data available
Water Supply Act	No data available
Sewerage Act	No data available
Marine Pollution Prevention Law	No data available
Waste Management and Public Cleansing Act	No data available
Note	Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

SECTION 16 Other information

The Safety Data Sheet (SDS) has been prepared based on currently available materials, information and data, and may be revised based on new information. Further, the important points in the SDS are made for the purpose of normal handling.

When handling the user product in a specialized manner, take the appropriate safety measures for the application or method.

Further, Canon Optron Inc. has paid sufficient attention to the described contents of the SDS, but does not guarantee the accuracy of its contents.

The SDS prepared by our company includes all findings from our investigation for reference. Not applicable to all items listed.

Literature Reference

[WEB site]

National Institute of Technology and Evaluation Homepage
 Japan Advanced Information Center of Safety and Health Homepage
 Ministry of Health, Labour and Welfare Homepage

[Regulatory review Tools]

ezCRIC (Japan Chemical Database Ltd)