Safety Data Sheet

According to Regulation (EC) No 1907/2006, Annex II,

Amended by COMMISSION REGULATION (EU) 2020/878,

According to REGULATION (EC) No 1272/2008

Sulfonium hexafluoroantimonate salts

Version 1.0

Issue date: 29-01-2021

Revision date: 29-01-2021 **SDS Record Number: CSSS-TCO-010-143506**

Section 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Identification on the label/Trade name:	Sulfonium hexafluoroantimonate salts
Additional identification:	Nanoform is NOT covered by this SDS.
UFI:	N/A
Identification of the product:	See section 3
Index Number:	See section 3
REACH registration No.:	See section 3

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

1.2.1 Identified uses:

Photoinitiator.

1.2.2 Uses advised against:

Not available.

1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative):	-
Supplier(Manufacturer):	Nantong Synasia New Material Co.,Ltd.
Address:	No.59 Xingang Road, Rugao City, Jiangsu Province, China
Contact person(E-mail):	ida@synasia.com.cn
Telephone:	+86-21-64184919
Fax:	+86-21-64047779

1.4 Emergency telephone Number:

+86-17316303296 Only available during office hours (9:00a.m.-17:30p.m.)

Available outside office hours?	YES		NO	X

Section 2 Hazards Identification

2.1 Classification of the substance or mixture:

2.1.1 Classification of the mixture:

The mixture is classified as following according to REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement

Acute Tox. 4	H302
Eye Irrit. 2	H319
Skin Sens. 1A	H317
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

For full text of H- phrases: see section 2.2.

2.2 Label elements:

Hazard pictogram(s):

Signal word: Warning

Hazard statement(s):

H302: Harmful if swallowed.
H319: Causes serious eye irritation.
H317: May cause an allergic skin reaction.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
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.
P330: Rinse mouth.
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.
P501: Dispose of contents/container in accordance with local regulations.

Supplemental Hazard information (EU) Not applicable.

2.3 Other hazards:

The mixture does not contain PBT/vPvB substance.

The mixture does not contain endocrine disruptor.

Section 3 Composition/information on ingredients

Substance/Mixture: Mixture

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration	Classification	Specific Concentration limits, M-Factors, Acute Toxicity Estimates (ATE)
propylene carbonate	N/A	108-32-7	203-572-1	40-60%	H319	N/A

(thiodi-4,1-phenylene)-bis-(diphenylbis)(OC-6,11)hexafluoroantimonate	N/A	89452-37-9	N/A	20-30%	H302 H332 H411	N/A
Diphenyl(4-(phenylthio)phenyl)sulfonium hexafluoroantimonate	N/A	71449-78-0	N/A	20-30%	H302 H317 1A H400 H410	M(Chronic)=10 M=100

Section 4 First aid measures

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of inhalation:

Move to fresh air. Oxygen or artificial respiration if needed. Victim to lie down in the recovery position, cover and keep him warm. Call a physician immediately.

4.1.2 In case of skin contact:

Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water. Keep warm and in a quiet place. Call a physician or poison control center immediately. Wash contaminated clothing before re-use.

4.1.3 In case of eyes contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine). Call a physician or poison control centre immediately. Take victim immediately to hospital.

4.1.4 In case of ingestion:

Call a physician or poison control centre immediately. Take victim immediately to hospital. If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Artificial respiration and/or oxygen may be necessary.

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

Harmful if swallowed. Causes serious eye irritation. May cause an allergic skin reaction.

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

If skin irritation or rash occurs, get medical advice/attention.

Section 5 Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Use carbon dioxide (CO_2), dry powder, water mist, alcohol-resistant foam to extinguish fire.

Unsuitable extinguishing media: No data available

5.2 Special hazards arising from the substance or mixture

Decomposition products may include the following materials: carbon dioxide, carbon monoxide.

5.3 Advice for firefighters:

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Wear chemical resistant oversuit. Cool containers / tanks with water spray.

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel: Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.1.2 For emergency responders: Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ventilate the area. Wear suitable protective clothing.

6.2 Environmental Precautions: Should not be released into the environment. Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for Containment and Cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

6.4 Reference to other sections: See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

Section 7 Handling and storage

7.1 Precautions for safe handling:

7.1.1 Protective measures: Ensure good ventilation/exhaustion at the workplace. Wash thoroughly after handling.

7.1.2 Advice on general occupational hygiene: Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities: Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s): Not applicable.

Section 8 Exposure Controls/Personal Protection

8.1 Control parameters:

8.1.1 Occupational exposure limits: propylene carbonate (CAS#108-32-7): Long-term exposure limit (TWA) : 7mg/m3(Lithuania)

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values: Not available.

8.2 Exposure controls:

8.2.1Appropriate engineering controls: Ensure adequate ventilation. Apply technical measures to comply with the occupational exposure limits.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection: Chemical resistant goggles must be worn.

Skin protection

Hand protection: Handle with gloves.

Body protection: Wear suitable protective clothing to prevent skin exposure.

Respiratory protection: Suitable respiratory protective device recommended.

Thermal hazards: Wear suitable protective clothing to prevent heat.

8.2.3 Environmental exposure controls: Avoid discharge into the environment.
According to local regulations, Federal and official regulations.

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance:	Liquid
Colour:	Light yellow transparent
Odour:	Slight odor
Odour threshold:	Not available
pH:	Not available
Melting point/range (°C):	122 °C(CAS#71449-78-0)
Boiling point/range (°C):	Not available
Flash point (°C):	> 300 °C(CAS#71449-78-0)
Evaporation rate:	Not available
Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Not available
Ignition temperature (°C):	Not available
Upper/lower explosive limits:	Not available
Vapour pressure (25°C):	<= 0.002 Pa(CAS#71449-78-0)
Vapour density:	Not available
Relative Density:	1.67(19 °C) (CAS#71449-78-0)
Bulk density (kg/m^3):	Not available
Water solubility (g/l):	0.085 g/L(20°C) (CAS#71449-78-0)
n-Octanol/Water (log Po/w):	-0.426(20°C) (CAS#71449-78-0)
Auto-ignition temperature:	Not available
Decomposition temperature:	ca. 346 °C(CAS#71449-78-0)
Viscosity, dynamic (mPa.s):	Not available
Explosive properties:	Not available
Oxidising properties:	Not available

9.2. Other information:

Fat solubility(solvent-oil to be specified) etc:	n-octanol: 0.032 g/L(20°C) (CAS#71449-78-0)
Surface tension:	Not available
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available

Section 10 Stability and reactivity

10.1 Reactivity:	The substance is stable under normal storage and handling conditions.
10.2 Chemical stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
10.3 Possibility of hazardous reactions:	No dangerous reactions known.
10.4 Conditions to avoid:	Incompatible materials.
10.5 Incompatible materials:	Strong oxidizing agents.
10.6 Hazardous decomposition products:	Carbon oxides.

Section 11 Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:

Acute toxicity:

ATE_{mix}(oral):	>625 mg/kg
ATE_{mix}(inhalation):	Not available
ATE_{mix}(Dermal):	Not available

Diphenyl(4-(phenylthio)phenyl)sulfonium hexafluoroantimonate (CAS#71449-78-0)

LD50(Oral, Rat):	> 300 mg/kg bw female
LC50(Inhalation, Rat):	Not available
LD50(Dermal, Rabbit):	Not available
Skin corrosion/Irritation:	Not classified
Serious eye damage/irritation:	Causes serious eye irritation.
Respiratory or skin sensitization:	May cause an allergic skin reaction.
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

11.2 Information on other hazards

Endocrine disrupting properties	The mixture does not contain endocrine disruptor.
Other information	Not applicable

Section 12 Ecological information

12.1 Toxicity:

Diphenyl(4-(phenylthio)phenyl)sulfonium hexafluoroantimonate (CAS#71449-78-0)

Acute (short-term) toxicity:

LC50(96h, Fish):	Not available
EC50(48h, Crustacea):	0.25 mg/L
EC50(72h, Algae/aquatic plants):	0.003 mg/L

Chronic (long-term) toxicity:

NOEC(Fish):	Not available
NOEC(Crustacea):	Not available
EC50(Algae/aquatic plants):	Not available
12.2 Persistence and degradability:	Not available.
12.3 Bioaccumulative potential:	Not available.
12.4 Mobility in soil:	Not available.
12.5 Results of PBT and vPvB assessment:	The mixture does not contain PBT / vPvB substance.
12.6 Endocrine disrupting properties:	The mixture does not contain endocrine disruptor.
12.7 Other adverse effects:	Very toxic to aquatic life with long lasting effects.
12.8 Additional information	Not available.

Section 13 Disposal considerations

13.1 Waste treatment methods:	Dispose of in accordance with all applicable local and national regulations. Use recovery/recycling where feasible, otherwise incineration is the recommended

method of disposal. Empty containers may contain hazardous residues. Do not cut, puncture or weld on or near to the container. Labels should not be removed from containers until they have been cleaned. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers.

Section 14 Transport information

	Land transport (ADR/RID)	Inland waterways (ADN)	Sea transport (IMDG)	Air transport (ICAO/IATA)
14. 1 UN number or ID number	UN3082	UN3082	UN3082	UN3082
14.2 UN Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.((thiodi-4,1-phenylene)-bis-(diphenylbis)(OC-6,11)hexafluoroantimonate andDiphenyl(4-(phenylthio)phenyl)sulfonium hexafluoroantimonate)	Environmentally hazardous substance, liquid, n.o.s.((thiodi-4,1-phenylene)-bis-(diphenylbis)(OC-6,11)hexafluoroantimonate andDiphenyl(4-(phenylthio)phenyl)sulfonium hexafluoroantimonate)	Environmentally hazardous substance, liquid, n.o.s.((thiodi-4,1-phenylene)-bis-(diphenylbis)(OC-6,11)hexafluoroantimonate andDiphenyl(4-(phenylthio)phenyl)sulfonium hexafluoroantimonate)	Environmentally hazardous substance, liquid, n.o.s.((thiodi-4,1-phenylene)-bis-(diphenylbis)(OC-6,11)hexafluoroantimonate andDiphenyl(4-(phenylthio)phenyl)sulfonium hexafluoroantimonate)
14.3 Transport hazard Class(es)	9	9	9	9
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes	Yes	Yes	Yes
14.6 Special precautions for user	See section 2.2	See section 2.2	See section 2.2	See section 2.2
14.7 Maritime transport in bulk according to IMO instruments	IBC03	IBC03	IBC03	IBC03

Section 15 Regulatory information

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

Relevant information regarding authorization: Not applicable.

Relevant information regarding restriction: Not applicable.

Other EU regulations: Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

Other National regulations: Not applicable

15.2 Chemical safety assessment YES [ ] NO [X]

Section 16 Other information

16.1 Indication of changes:

Version 1.0 Amended by (EU) 2020/878

16.2 Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation for rail International transportation of Dangerous goods

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: Code international maritime dangerous goods code

ICAO: International Civil Aviation Organization

IATA: International Air Transport Association

UFI: Unique Formula Identifier

LC50: median lethal concentration

EC50: The effective concentration of substance that causes 50% of the maximum response.

NOEC: No Observed Effect Concentration

DNEL: derived no-effect level

PNEC: predicted no-effect concentration

16.3 Key literature references and sources for data

ECHA Registered substances data

16.4 Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to Regulation (EC) No. 1272/2008		Classification procedure
Acute Tox. 4	H302	Calculation method
Eye Irrit. 2	H319	Calculation method
Skin Sens. 1A	H317	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 1	H410	Calculation method

16.5 Relevant H-statements (number and full text):

H302: Harmful if swallowed.

H319: Causes serious eye irritation.

H317: May cause an allergic skin reaction.

H332: Harmful if inhaled.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

H411: Toxic to aquatic life with long lasting effects.

16.6 Training instructions:

Not applicable.

16.7 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.8 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.