

Safety Data Sheet (SDS) Report

SDS number: 240722008SHF04

Applicant: NANHAI DISPLAY LIMITED
Rooms 1318-19, Hollywood Plaza,
610 Nathan Road, Mongkok, Kowloon, HK

Issue Date: 2024-08-05

Sample Description:

The sample information was submitted and identified on client's behalf to be:

Product Name : Nano Cloaking Film
Physical State : Solid
Data Received : Jul 22, 2024
Data Reviewed : Aug 05, 2024

Service Requested:

Based on the information provided by the applicant, the Safety Data Sheet (SDS) was generated according to requirements of SS 586: Part 3:2008(2022), for details please refer to attached pages.

Authorized By:

On Behalf Of Regulatory Affairs in Intertek Testing Services Ltd., Shanghai



Anna Wang
Technical Manager

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Nano Cloaking Film

Safety Data Sheet

According to SS 586 Part 3: 2014

Issue date: 08/05/2024 Revision date: 08/05/2024 Version: 1.0 SDS number: 240722008SHF04

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture
Product name : Nano Cloaking Film
Other identification : Product Identifier: T0F2; Product Code: B880528251

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Optical Film

1.4. Supplier's details

Applicant
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Rooms 1318-19, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon, HK
999077
T: 86-15902199714, 86-18916202964
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Supplier
XIUYA TECHNOLOGY (SHANGHAI) CO., LTD.
Room U22, Building 3, No. 39 Linbao Road, Tinglin Town, Jinshan District, Shanghai 201505, P.R.China
201505
T: 86-21-57525589, 86-15000110024
xu.wangsuo@showyaaa.com

1.5. Emergency phone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Health hazards
Skin corrosion/irritation, Category 1A
Serious eye damage/eye irritation, Category 1
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

2.2. GHS label elements including precautionary statements

Hazard pictograms (GHS SG)



Signal word (GHS SG)

: Danger

Hazard statements (GHS SG)

H314 : Causes severe skin burns and eye damage.

H335 : May cause respiratory irritation.

Precautionary statements

Prevention

P260 : Do not breathe dust/fume/gas/mist/vapours/spray.

P264 : Wash hands, forearms and face thoroughly after handling.

P271 : Use only outdoors or in a well-ventilated area.

P280 : Wear protective gloves/protective clothing/eye protection/face protection.

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Response

P301+P330+P331 : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303+P361+P353 : IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 : IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 : Immediately call a POISON CENTER or doctor.

P312 : Call a POISON CENTER or doctor if you feel unwell.

P321 : Specific treatment (see supplemental first aid instruction on this label).

P363 : Wash contaminated clothing before reuse.

Storage

P403+P233 : Store in a well-ventilated place. Keep container tightly closed.

P405 : Store locked up.

Disposal

P501 : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Synonyms	Concentration (%)	Formula	Product identifier
Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)	-	46 – 54	(C10H8O4) _n	CAS-No.: 25038-59-9
Polyvinyl alcohol	-	21 – 25	(C2H4O) _x	CAS-No.: 9002-89-5
Cellulose, triacetate	-	14 – 17	C2H4O2.1/3U nspecified	CAS-No.: 9012-09-3
Acrylic acid	-	8 – 10	C3H4O2	CAS-No.: 79-10-7 EC-No.: 201-177-9 EC Index-No.: 607-061-00-8

Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
Acrylic acid	CAS-No.: 79-10-7 EC-No.: 201-177-9 EC Index-No.: 607-061-00-8	(1 ≤ C < 100) STOT SE 3; H335

SECTION 4: First-aid measures

4.1. Description of necessary first aid measures

First-aid measures general

: Call a physician immediately.

Inhalation

: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

Skin contact

: Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.

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Eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
Ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

4.3. Indication of immediate medical attention and special treatment needed

Note to physician :	Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Special protective actions for fire fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protective equipment for firefighters	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Using a clean shovel, put the material in a dry container and cover without compressing it.
Methods for cleaning up	: Mechanically recover the product.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling	: Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Store locked up. Store in a well-ventilated place. Keep container tightly closed.
Packaging materials	: PE/PVC Store always product in container of same material as original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters/Occupational exposure limits

Acrylic acid (79-10-7)

Singapore - Occupational Exposure Limits

Local name	Acrylic acid
PEL (OEL TWA)	5.9 mg/m ³ 2 ppm
Regulatory reference	WSH (General Provision) Regulation 2014

8.2. Monitoring

No additional information available

8.3. Appropriate engineering control measures

Appropriate engineering controls	: Ensure good ventilation of the work station.
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8.4. Personal protection

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection	: Protective gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment (EN 136/140/145)
Environmental exposure controls	: Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid, Roll type
Colour	: Grey, Transparent
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available

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Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: 79°C
Auto-ignition temperature	: Not applicable
Decomposition temperature	: 80°C
Flammability	: Not flammable.
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available
Density	: 1.3 g/cm ³
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Acute toxicity

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Polyvinyl alcohol (9002-89-5)

LD50 oral rat	23854 mg/kg (Source: NLM_CIP)
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Acrylic acid (79-10-7)

LD50 oral rat	1000 - 2000 mg/kg
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Skin corrosion/irritation	: Causes severe skin burns.
Serious eye damage/irritation	: Causes serious eye damage.

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Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Acrylic acid (79-10-7)

LC50 - Fish [1]	222 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static] Source: IUCLID)
EC50 - Crustacea [1]	95 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Other aquatic organisms [1]	95 mg/l Test organisms (species):
EC50 - Other aquatic organisms [2]	0.06 mg/l
EC50 72h - Algae [1]	0.04 mg/l (Species: Desmodesmus subspicatus)
EC50 96h - Algae [1]	0.17 mg/l (Species: Pseudokirchneriella subcapitata)
Partition coefficient n-octanol/water (Log Pow)	0.46 (at 25 °C)

12.2. Persistence and degradability

Nano Cloaking Film

Persistence and degradability	No additional information available
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12.3. Bioaccumulative potential

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Bioaccumulative potential	No additional information available
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Acrylic acid (79-10-7)

Partition coefficient n-octanol/water (Log Pow)	0.46 (at 25 °C)
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12.4. Mobility in soil

Nano Cloaking Film

Mobility in soil	No additional information available
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Acrylic acid (79-10-7)

Mobility in soil	6 – 137 Source: ECHA
Partition coefficient n-octanol/water (Log Pow)	0.46 (at 25 °C)

12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No additional information available

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SECTION 13: Disposal considerations

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
14.1. UN number		
3547	3547	3547
14.2. UN proper shipping name		
ARTICLES CONTAINING CORROSIVE SUBSTANCE, N.O.S.	Articles containing corrosive substance, n.o.s.	ARTICLES CONTAINING CORROSIVE SUBSTANCE, N.O.S.
14.3. Transport hazard class(es)		
8	8	8
	Not applicable	
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available		

14.6. Special precautions for user

UN RTDG

Special provisions (UN RTDG)	: 274, 391
Limited quantities (UN RTDG)	: 0
Excepted quantities (UN RTDG)	: E0
Packing instruction (UN RTDG)	: P006, LP03

IMDG

Special provisions (IMDG)	: 274, 391
Limited quantities (IMDG)	: 0
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P006, LP03
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES
Stowage category (IMDG)	: B
Stowage and handling (IMDG)	: SW2
Properties and observations (IMDG)	: Causes burns to skin, eyes and mucous membranes.

IATA

PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: Forbidden
CAO max net quantity (IATA)	: Forbidden

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Special provisions (IATA) : A2
ERG code (IATA) : 8L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

Regulation		Component / Mixture
Workplace Safety and Health Act Workplace Safety and Health (General Provisions) Regulations	Applicable	Acrylic acid
Arms and Explosives Act	Not applicable	
Chemical Weapons Prohibition Act	Not applicable	
Environmental Protection and Management (Air Impurities) Regulations	Not applicable	
Environmental Protection and Management Act (Hazardous Substances)	Not applicable	
Environmental Public Health (Quality of Piped Drinking Water) Regulations	Not applicable	
Fire Safety Act/Fire Safety (Petroleum and Flammable Materials) Regulations	Not applicable	
Maritime and Port Authority of Singapore (Dangerous, Petroleum and Explosives) Regulations	Not applicable	
Misuse of Drugs Act	Not applicable	
Poisons Act	Not applicable	
Poisons Rules	Not applicable	
Hazardous waste (Control of export, import and transit) Act	Not applicable	
Strategic goods (Control) Act	Not applicable	

15.2. International regulations

No additional information available

15.3 Chemical inventory status

No additional information available

SECTION 16: Other information

Issue date : 08/05/2024

Safety Data Sheet (SDS), Singapore

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.