

Safety data sheet for chemical products, MSDS

Product name: A7105

According to UN GHS (the 9th revise edition)

Initial date of preparation: 2024/9/15

The revision date: 2026/1/20

Section 1 - Chemical and corporate identity

Product's information

Chemical name: Isobornyl Acrylate

Recommended use: UV inks, adhesives, coatings, photoresists

Supplier's information

Supplier: Guangzhou BAWO New Material Science Co., Ltd.

Tel: 86-020-31074363

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Emergency Contact Number: 86-020-31074363

Section 2 - Hazard Identification

GHS of the substance or mixture

Skin sensitization - Category 1 H317

Serious eye damage/eye irritation, Category 2 H319

Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation H335

Hazardous to the aquatic environment – Acute Hazard, Category 1 H400

Hazardous to the aquatic environment – Chronic Hazard, Category 1 H410

Full text of H- and EUH-statements: see section 16

GHS label elements, hazard statements and precautionary statement



Hazard pictogram:

Signal word: Warning

Hazard statements:

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.



H335 - May cause respiratory irritation.

H400 - Very toxic to aquatic life

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

Precautionary statements:

Prevention

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

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

P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P391 - Collect spillage.

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

Response Measures:

P302 + P352 If on skin: Wash with plenty of water / The manufacturer/supplier or competent authority may specify the cleaning agent to be used as appropriate, or recommend an alternative cleaning agent in special circumstances, such as when water is clearly unsuitable.

P321 Specific treatment, if immediate measures are recommended, such as the use of a specific cleaning agent. See additional first aid instructions. P332 + P313 If skin irritation occurs: Get medical advice/attention. If P333+P313 is already shown on the label, this can be omitted. The manufacturer/supplier or competent authority shall select the appropriate medical advice or treatment plan. P362 + P364 Take off contaminated clothing and wash before reuse. P305 + P351 + P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention. The manufacturer/supplier or competent authority shall select the appropriate medical advice or treatment plan.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention. The manufacturer/supplier or competent authority may select the appropriate medical advice or treatment plan.

P304 + P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.

P312 Call a poison control center/doctor/ If you feel unwell, the manufacturer/supplier competent authority shall specify the appropriate emergency medical Or institution/personnel.

Storage:

P391 Collect spillage.



P403 + P233 Store in a well-ventilated place. Keep container tightly closed. If the chemical is volatile, it may cause danger to the surrounding air.

P405 Store locked up.

Disposal:

P501 Dispose of contents/packaging in accordance with local/regional/national/international regulations (specify). The manufacturer/supplier or competent authority shall specify whether the disposal requirements apply to the contents, the packaging, or both.

Other Hazards:

This product has skin sensitization; This product releases intense heat when polymerized, and produces carbon oxides when heated to decomposition.

Section 3 - Composition/Composition Information

Chemical characterization: substance.

Common name and synonyms	Component	Concentration or concentration range [% quality score]	CAS No.	EC No.
Isobornyl acrylate	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	≥ 98%	5888-33-5	227-561-6

Section 4 - First-aid Measures

Recommended procedures:

General notes: First aider needs to protect himself. Take off all contaminated clothing immediately. Medical treatment is necessary if symptoms occur which are obviously caused by skin or eye contact with the product or by inhalation of its vapours.

Skin contact: Wash skin with plenty of water. Take off contaminated clothing. 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.

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

Ingestion: Under normal use conditions, a large-scale ingestion risk is not expected; in case of massive ingestion and the patient is still conscious, give about 500 mL of water, do NOT induce vomiting, and send the patient to a hospital as soon as possible.



Indication of immediate medical attention and special treatment needed, if necessary:

1. Treatment symptomatically; 2. Symptoms may be delayed.

Section 5 - Fire-fighting Measures

Suitable extinguishing agent: Water spray. Dry powder. Foam. Carbon dioxide

Unsuitable extinguishing media: High volume water jet.

Fire precautions and protective measures:

The danger of fire could meet:

1. It is estimated that most organic dusts (approximately 70%) are combustible. The actual combustion process depends on specific environmental conditions, and such materials may, under certain circumstances, cause fires and/or dust explosions.
2. Slight fire hazard when exposed to heat or flame. In case of fire, the following may be released: carbon dioxide, phosphorus oxides, and harmful vapors.
3. Organic powders, when dispersed within a certain concentration range in air or other oxidizing media—regardless of particle size or shape—may form explosive dust- air mixtures and lead to fires or dust explosions (including secondary explosions).

For the protection of firefighters:

1. Access forbidden to unauthorised personnel. Approach from upwind. Complete protective clothing. Cool containers / tanks with spray water if possible. Do not allow run-off from fire fighting to enter drains or water courses. Eliminate all ignition sources if safe to do so.
2. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Section 6 - Leakage Emergency Treatment

Personal protective measures, protective equipment and emergency procedures:

1. Ventilate spillage area. Avoid breathing (dust, vapor, mist, gas). Avoid contact with skin and eyes. Do not flush into surface water or sanitary sewer system. Eliminate all ignition sources if safe to do so.
2. Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Environmental Attentions:

1. Remove all sources of ignition
2. Contain the spill and absorb with dry sand
3. Maintain environmental ventilation
4. Prevent from flowing into sewers and ditches



5. Report the leak to the local government environmental protection authority

Methods and appliances for cleaning up:

1. Do not touch the spill
2. If safety permits, try to stop or reduce the spill
3. For small spills: Absorb with sand or non-combustible materials
4. Place in a properly covered and labeled container
5. For large spills: Dig trenches for waste disposal

Section 7 - Safety Operating Precautions and Storage**Safety operation precautions:**

1. Use only outdoors or in a well-ventilated area. Avoid breathing (dust, vapor, mist, gas). Avoid contact with skin and eyes. Wear personal protective equipment. Do not drink, eat or smoke in the workplace. Eliminate all ignition sources if safe to do so. Avoid static electricity discharges.
2. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

Conditions for safe storage:

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool. Keep only in original container.

Incompatible materials : Peroxides, amines, sulfur compounds, heavy metal ions, alkalis, reducing agents and oxidizing agents.

Storage temperature : < 30 °C

Section 8 - Contact Control/Personal Protection

Occupational exposure limit values: No information available.

Biological limit values: No information available.

Appropriate Engineering Controls:

1. Use a spark-free, grounded ventilation system that is separate from the exhaust system.
2. Direct exhaust gases outdoors and take appropriate measures for environmental protection.
3. For large-scale operations, use local exhaust and process enclosure.
4. Provide sufficient fresh air to replenish the air exhausted by the exhaust system.

Individual protection measures:

General requirement:





佩戴防护眼镜

Wear Eye Protection



穿戴防护服

Wear Protective Clothing



佩戴呼吸器

Wear Respirator



穿戴安全鞋

Wear Safety Footwear



佩戴面罩

Wear Face Shield



穿戴防护手套

Wear Protective Gloves

Eye protection: When eyes may be exposed to splashed liquids, airborne particles or vapors, wear safety goggles with splash guards or full-face shields. Contact lenses should not be worn.

Hand protection: Protective gloves(such as butyl rubber), approved by EN374(EU).

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Skin and Body Protection: Determine the required protective gloves, work clothes,safety shoes, head or face protection equipment according to the operating conditions; these equipment must be thoroughly cleaned before reuse.

Section 9 - The characteristics of physical and chemical

Appearance:	Colourless liquid.
Odor:	Ester-like.
Melting point/Freezing point:	< -50 °C @101.3 kPa
Initial boiling point and boiling range:	150 °C @101.3 kPa
Flammability(solid,gas):	Non flammable
Upper/lower explosive limits:	Non explosive
Flash point:	104 ° C @1013 hPa
Auto-ignition temperature:	375 ° C @1013 hPa
Decomposition temperature:	No information available
pH:	No information
Viscosity:	7.5 mPa.s @20°C (dynamic)
Water solubility:	Slightly soluble. Water: 19.8 mg/l
n-octanol/water partition coefficient: log Kow (log Pow):	4.52 @20°C
Vapor pressure:	0.013 hPa @20°C
Relative density:	0.99 @20°C
Vapor density:	No information

Section 10 - Stability and Reactivity

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

Stability: Stable under normal conditions.



Possibility of hazardous reaction: Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

Conditions to avoid: Ultraviolet light. Avoid high temperatures and sources of ignition. The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.

Prohibited content: Peroxides, amines, sulfur compounds, heavy metal ions, alkalis, reducing agents and oxidizing agents.

Hazardous decomposition products: Carbon monoxide, carbon dioxide, organic products of decomposition.

Section 11 - Toxicological information:

Acute toxicity:

LD50(oral,Rat): 4350 mg/kg bodyweight

LD50(dermal,Rat): > 3000 mg/kg bodyweight

LC50(inhalation,Rat): No information

Skin irritation or corrosion: Causes skin irritation.

Eye irritation or corrosion: Causes serious eye irritation.

Respiratory or skin irritation: May cause an allergic skin reaction.

Germ cell mutagenicity: Not classified

Carcinogenicity: IARC: Not classified

Reproductive toxicity: Not classified

Specific target organ systemic toxicity-single exposure: May cause respiratory irritation.

Specific target organ systemic toxicity-repeated exposure: Not classified

Inhalation hazards: Not classified

Section 12 - Ecological information

Acute toxicity (short-term): Very toxic to aquatic life.

LC50 (96h, Fish): 0.704 mg/l

EC50 (72h, Algae/aquatic plants): 1.98 mg/l

Chronic toxicity (long-term):

NOEC (Fish): No information

NOEC (Crustacea): 0.092 mg/l

NOEC (Algae/aquatic plants): 0.405 mg/l

Persistence and degradability: Inherently biodegradable.

Bioaccumulative potential: No bioaccumulation expected.



Mobility in soil: Organic Carbon Normalized Adsorption Coefficient(Log Koc) :3.71

Results of PBT and vPvB assessment: This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

Endocrine disrupting properties: The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

Other adverse effects: Not available.

Section 13 - Disposal considerations

Disposal method:

1. Due to the possibility of exothermic polymerization, residues or leaks may be classified as hazardous waste. Please refer to relevant regulations for waste disposal.
2. The packaging barrels of this product may have the risk of bursting or catching fire, and this possibility even exists for empty barrels after use. To avoid the risk of injury, do not cut, perforate, or weld on or near this packaging container; since a small amount of product still remains in the empty barrel after use, the warning labels should be retained on the empty barrel as much as possible.

Section 14 - Transportation information

	Highway transport (ADR/RID)	Maritime transport (IMDG)	Air transport (ICAO/IATA)
UN number	UN 3082	UN 3082	UN 3082
United nations transport name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Exo-1,7,7- trimethylbicyclo[2.2.1]hept- 2-yl acrylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Exo-1,7,7- trimethylbicyclo[2.2.1]hept- 2-yl acrylate)	Environmentally hazardous substance, liquid, n.o.s. (Exo-1,7,7- trimethylbicyclo[2.2.1]hept- 2-yl acrylate)
United nations classification of hazards	9	9	9
Categories of	III	III	III



packing			
Transport in bulk according to IMO instruments	Not regulated	Not regulated	Not regulated
Environmental hazards	Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
Transport pictograph			
Special precautions for user	Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.		

Instruction:

1. The transport vehicles should be equipped with the corresponding number of fire fighting equipment and emergency leakage equipment.
2. It is forbidden to use mechanical equipment and tools that are easy to spark.
3. It is forbidden to mix with oxidizer, acid, strong alkali and edible chemicals.
4. The packing should be complete during shipment, and the loading should be safe.
5. Product should prevent exposure to the sun, rain, and high temperature during transportation. The best time to transport is the morning and evening.
6. During the stopover, it should stay away from the fire, heat source and high temperature area.

Section 15 - Regulatory information

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

REACH Candidate List (SVHC) : Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent): Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants): Not listed on the POP list (Regulation EU 2019/1021)



Ozone Regulation (1005/2009): Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Explosives Precursors Regulation (2019/1148): Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004): Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Chemical safety assessment: A chemical safety assessment has been carried out

Section 16 - Other information

Write and edit information:

The safety technical specifications have been revised according to the requirements of UN GHS. (9th revision)

The revision date: 2026/1/20

Important disclaimer:

The data of the company is currently known data, according to the product under normal use, list must pay attention to matters, suggest the user to enable before, should read this data, help to the safe use and correct waste management. Please contact business technical staff if you have any doubts. But this data does not ensure that extended to processed products, whether have you made with materials processing, the user should be aimed at its product testing or certification to fully comply with relevant laws and regulations and requirements of the client, especially special purposes, such as the application of medicine, in case of any dispute and should not belong to the company's liability.

Data maker: Guangzhou BAWO New Material Science Co.,Ltd

