SAFETY DATA SHEET

1. CHEMICAL PRODUCT & COMPANY INDETIFICATION

PRODUCT CODE: 403241

PRODUCT NAME: UV-LED RESIN "STAR DROPS" Hard 200g

COMPANY IDENTIFICATION

Company name PADICO Co., Ltd.

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JAPAN 412-0047

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Department Research and Development section

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Recommended use of product and Production of handcraft work and

restrictions on use accessories

2. HAZARD IDENTIFICATION

GHS CLASSIFICATION OF THE SUBSTANCE OR MIXTURE PHYSICAL HAZARDS

Not classified Explosives Flammable gases Not classified Flammable aerosols Not classified Not classified Oxidizing gases Gases under pressure Not classified : Not classified Flammable liquids Flammable solids Not classified Self-reactive substances and mixtures Not classified Pyrophoric liquids Not classified Not classified Pyrophoric solids Self-heating substances and mixtures Not classified Not classified Substances and mixture which, in contact

with water, emit flammable gases

Oxidizing liquids : Not classified
Oxidizing solids : Not classified

Organic peroxides : Not classified
Corrosive to metals : Not classified

HEALTH HAZERDS

Acute toxicity(oral) Not classified Acute toxicity(skin) Not classified Acute toxicity(inhalation: gas) Not classified Acute toxicity(inhalation: dust) Not classified Acute toxicity(inhalation: mist) Not classified Skin corrosion / irritation Category 2 Serious eye damages / eye irritation Category 2A Respiratory sensitization Not classified Skin sensitization Category 1 Germ cell mutagenicity Not classified Carcinogenicity Not classified Not classified Reproductive toxicity Specific target organ toxicity [single exposure] Not classified Specific target organ toxicity [repeated exposure] Not classified Aspiration hazard Not classified

ENVIRONMENTAL HAZERDS

Aquatic toxicity (acute) : Not classified

Aquatic toxicity (chromic) : Not classified

Harmful effect on the ozone layer : Not classified

GHS LABEL ELEMENTS INCLUDING :PRECAUTIONRY STATEMENTS

SYMBOL :

Warning

SIGNAL WARD : Warning

Causes slight skin irritation
Causes serious eye irritation

PRECAUTINARY STATEMENTS

HAZARD STATEMENT

[Prevention] : Use explosion-proof electric apparatus. Remove ignition

sources (static electricity and spark etc.).

Avoid inhalation to vapor / mists. Use adequate ventilation system (local exhaust, closed system, general ventilation

etc.).

Wash hands and face thoroughly and gargle after handling. Wear impermeable gloves and safety glasses, etc. and avoid contact with skin, eyes and clothes, etc.

If material is spilled, absorb with inert materials (rag and sand etc.) and put in a disposal container with a lid.

[Response] : Fire: Fire fighting with powder, carbon dioxide or form.

Inhalation: Remove victim to fresh air and keep at rest in position comfortable for breathing. Get medical attention immediately.

Eye contact: Rinse cautiously with clean water for at least 15 minutes and get medical attention.

Skin contact: Remove attached substances and wash with plenty of soap and water. If skin irritation or rash occurs,

get medical attention.

Ingestion: Rinse mouth with water and get medical

attention immediately.

[Storage] : Keep in tightly container. Store in cool, dark, dry,

well-ventilated cabinet or refrigerator.

[Disposal] : Dispose of according to all applicable federal, state and

local environmental regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE/MIXTURE: Mixture
SYNONYMS: Acrylic UV curable resin

Component	Content (%)	Cas No.
Acrylic ester	42-52	Company secret
Acrylic-modified oligomer(I)	12-22	Company secret
Acrylic-modified oligomer(Π)	8-18	Company secret
Methacrylic ester	6-12	Company secret
Polythiol	8-18	Company secret
Additives (photoinitiator etc.)	<1	Company secret

4. FIRST AID MEASURES

IF IN EYES : Rinse cautiously with clean water for at least 15minutes. Remove

contact lenses, continue rinsing. Get medical attention.

IF ON SKIN : Remove attached substance and wash with plenty of soap and water.

Take off immediately all contaminated clothing and shoes. If skin

irritation or rash occurs, get medical attention.

IF INHALED : Remove victim to fresh air and keep at rest in a position comfortable

for breathing. Get medical attention immediately.

IF SWALOWED : Rinse mouth with water and get medical attention immediately.

5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING : Powder (Dry chemical), carbon dioxide, foam

MEDIA

UNSUITABLE EXTINGUISHING : Water

MEDIA

SPECIFIC HAZARDS This substance may ignite by heat, spark and flame

and burn with intense heating. At fire, irritative,

corrosive and toxic gas may be generated.

SPECIFIC EXTINGTION : Remove all ignition sources and fight a fire wearing

METHOD protective equipment. In case of flowing out, dam up

it and keep container away from fire.

SPECIAL PROTECTIVE FOR : Wear respiratory protective equipment to avoid

FIRE-FIGHTERS inhalation to toxic gas and fire-extinguishing work

is done from windward.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, : Work is done from windward and avoids

PROTECTIVE EQUIPMENT AND inhalation to vapor and contact with skin

EMERGENCY PROCEDURES wearing protective equipment. Keep people

away from downwind.

Non-participants are banned from entering

around leakage area.

Remove ignition sources and prepare fire

extinguishers.

ENVIROMENTAL PRECAUTIONS : Prevent product from entering drains.

METHODS AND MATERIALS FOR : Absorb spilled material in rag or sand and

CONTAINMENT AND CLEANING UP put in a disposal container with a lid.

In case of large amount of spillage, dam up

it with sand etc.

7. HANDLING AND STORAGE

HANDLING

TECHNICAL MEASURE : No fire. Use explosion-proof electric apparatus and

(LOCAL-VENTILATION/WHLE- remove ignition sources (static electricity and

VENTILATION) spark etc.). Wear suitable protective equipment to

avoid inhalation or contact.

Use adequate ventilation system (local exhaust,

closed system, general ventilation etc.).

NOTES : Use protective equipment. Avoid inhalation to

vapor and contact with skin, eyes and clothing. Prevent contact to strong acids, strong bases, oxidizing agents (peroxide etc.) and amines.

Wash hands and face thoroughly and gargle after

handling.

STORAGE

APPROPRIATE SAFEKEEPING

CONDITION

Law is followed. Keep container tightly closed.

Store in a cool, dark, dry, well-ventilated cabinet or

refrigerator.

Store away from incompatible materials such as

strong acids, strong bases, oxidizing agents

(peroxide etc.) and amines.

PACAGING MATERIALS : Law is followed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL LIMIT : Not set up

OCCUPATIONAL : No set up

EXPOSURE LIMITS

FACILITY AND : Use adequate ventilation system (local exhaust, closed

EQUIPMENT MEASURES system, general ventilation etc.) to avoid inhalation to

vapor. Near to workplace install hand washer, eye washer

and safety shower.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection : Organic vapor respirator. Follow local and national

regulations.

Hand protection : Impermeable gloves (polyethylene or rubber gloves).

Eye protection : Safety goggles or safety glasses with side shields.

Skin and body protection Protective clothing and protective boots (impermeable).

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical condition : High viscosity liquid

Color Light bluish purple transparent

Vapor pressure : No data available
Specific gravity : Approx 1.17 (25°C)

Solubility : Very soluble in organic solvents (toluene,

acetone, ethanol etc.)

Octanol/water partition coefficient : No data available
Autoignition temperature : No data available
Decomposition temperature : No data available

Viscosity : 2600-3800mPa·s $(25^{\circ}C)$

10. STABILATY AND REACTIVITY

REACTIVITY : Exothermic polymerization may occur under high

temperature or photo irradiation.

Violent reaction may occur under mixing with strong acids, strong bases, oxidizing agents

(peroxide etc.) and amines.

STABILITY : Stable at moderate condition. Exothermic

polymerization may occur under high temperature or photo irradiation.

CONDITIONS TO AVOID : High temperature, Light irradiation

INCOMPATIBLE MATERIALS : Strong acids, strong vases, oxidizing agents,

amines etc.

HAZARDOUS DECOMPOSITION

PRODUCTS

No data available

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY [ORAL] : No data available

ACUTE TOXICITY [SKIN] : No data available

ACUTE TOXICITY [INHALATION] : No data available

SKIN CORROSION/IRRITATION : Polythiol: Category 2

SERIOUS EYE DAMAGE/EYE IRRITATION : Polythiol: Category 2A

RESPIRATIORY OR SKIN SENSITIZATION : No data available
GERM CELL MUTAGENICITY : No data available
CARCINOGENICITY : No data available
REPRODUCTIVE TOXICITY : No data available
SPECIFIC TARGET ORGAN TOXICITY : No data available

[SINGLE EXPOSURE]

SPECIFIC TARGET ORGAN TOXICITY : No data available

[REPEATED EXPOSURE]

ASPIRATION HAZARD : No data available

12. ECOLOGICAL INFORMATION

ECOTOXICITY : No data available
DEGRADABILITY AND PERSISTENCE : No data available
BIOACCUMULATION POTENTIAL : No data available

MOBILITY IN SOIL : In view of physical and chemical

properties, it is possible to move to

atmosphere, waters and soil.

HARMFUL EFFECT ON THE OZONE LAYER : No data available

13. DISPOSAL CONSIDERATION

THE REMAINDER WASTE : Dispose of according to all applicable federal, state

and local environmental regulations.

OLLUTION CONTAINER AND : Cleaning for recycling of dispose of according to all

PACKING applicable federal, state and local environmental

regulations.

14. TRANSPORT INFORMATION

INTERNATIONAL REGULATIONS

UN number : Not listed

Hazard class : Does not correspond to the classification standard of united

nations

15. REGULATORY INFORMATION

Fire and Disaster Management act : Class-4 No.4 petroleum Dangerous grade 3

(JAPAN) (water-insoluble fluid)

16. OTHER INFORMATION

REFERENCES

- 1. Japan chemical industry association, "GHS correspondence guideline (2012)"
- 2. UNITED NATTONS, "GLOVALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OG CHEMICALS (GHS) Rev.4 (2011)
- 3. Get our source materials

The assessment of hazards and toxicity is not necessarily enough, and sufficient care should be taken for handling. This SDS is a summary, and the stated cautions are for normal handling only. Safe usage conditions shall be set up on each user's own responsibility after the manufacturer and/or recognized technical sources, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. It may be revised based on a revision of the law and new information or amendments.