

FLUOSTAR

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MATERIAL SAFETY DATA SHEET

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION

Name: Carboxy modified acrylate resin containing fluorescent dyes
Trade Name: FLUOSTAR (Fluorescent microspheres)
Use of the substance: Tracer particles for flow visualization

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	WT%	CAS No.	EINECS	R-phrase	Symbol
Carboxy modified acrylate resin	> 99	Confidential	○ (As monomers)	n.a	n.a
Rhodamine B	< 1	81-88-9	201-383-9	R22,R40	Xn

Note: Information of substance name, etc. is trade secret.

SECTION 3. HAZARDS IDENTIFICATION according to Directive 67/548/EEC or 1999/45/EC

Not applicable to any category of the Directive.

Flammable / Explosive dust-air mixture might be formed, so use this material at the area ventilated well and free from source of ignition to prevent dust explosion.

SECTION 4. FIRST AID MEASURES

Not necessary to undergo medical treatment immediately.

4-1 Skin contact: It's not a dangerous substance, but wash away with soap and water.

4-2 Eye contact: Wash eyes immediately with plenty of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20minutes). And get medical attention if needed.

4-3 Inhalation: Remove himself/herself to fresh air.

4-4 Ingestion: Get the person to vomit as much as possible. And get medical attention if needed.

SECTION 5. FIRE FIGHTING MEASURES

5-1 Suitable extinguishing media: Water spray, dry chemical or foam

5-2 Exposure hazards: Sooty smoke and/or toxic gases might arise due to thermal decomposition and/or incomplete combustion.

5-3 Protective equipment for fire-fighters: Use self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- 6-1 Personal precautions: Wear proper protective equipment to avoid accidental eye contact or inhalation.
- 6-2 Environmental precautions: Prevent leakage to natural water system.
- 6-3 Methods for cleaning: Use a vacuum cleaner. Do not raise dust.

SECTION 7. HANDLING AND STORAGE

- 7-1 Handling: Handle at well-ventilated area carefully not to scatter the powder and to avoid dust explosion.
- 7-2 Storage: Keep away from heat and flame. Store in dry space.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8-1 Exposure limit values: n. a.

8-2 Exposure controls:

1. Occupational exposure controls
 - 1) Respiratory protection: Wear dust respirator. Not required
 - 2) Hand protection: Wear protection goggles.
 - 3) Eye protection: Not required
 - 4) Skin protection:
2. Environmental exposure controls
Use mechanical ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Melting point:	n. a.	Appearance:	pink powder
Flammability:	flammable	Odor:	odorless or faint odor
Explosive properties:	dust explosive	Density:	1.1 g/cm ³ by pycnometer with EtOH
Solubility in water:	not soluble	Solubility in organic solvent:	not soluble
Flash point:	no data available	Ignition point:	no data available
Percent Volatile:	less than 2 %	pH-value:	5 ~ 7

SECTION 10. STABILITY AND REACTIVITY

- 10-1 Stability: Stable within ordinary conditions.
- 10-2 Materials to avoid: Alcohol or other organic solvents
- 10-3 Hazardous decomposition products Not known, but organic solvents should not be used.

SECTION 11. TOXICOLOGICAL INFORMATION

LD ₅₀ (Rats-Oral):	no information
Eye irritation:	no information
Skin irritation:	no information
Other toxicological information:	no information

SECTION 12. ECOLOGICAL INFORMATION

Any adverse effects upon ecological system are not known.

SECTION 13. DISPOSAL CONSIDERATIONS

Not classified as a hazardous waste.
Dispose according to national and local regulation.

SECTION 14. TRANSPORT INFORMATION

Keep away from source of ignition.

UN Number and Class: n. a.

Land-Road/Railway: no classified according to ADR/RID

Inland Waterways: no classified according to ADNR

Sea: no classified according to IMDG

Air: no classified according to IATA

Follow all regulations in your country or region.

SECTION 15. REGULATORY INFORMATION according to Directive 67/548/EEC or 1999/45/EC

This substance does not need to be labelled in accordance with Directives.

SECTION 16. OTHER INFORMATION

For reference

Dust Explosion data of Crosslinked Polymethyl methacrylate
(mean particle diameter 5 micron)

explosion lower limit: 50 g/m³

max. explosion pressure: 8.3 bar

min. ignition energy: < 10 mJ

dust explosion class: stage 3

By The Technical Institute of Industrial Safety (Japan)

n. a. : not applicable

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