

MATERIAL SAFETY DATA SHEET

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1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

FLOMIN C-3505

Supplier :

FLOMIN INC.

7500 FM 1405

BAYTOWN, TEXAS 77520

Tel : 281-573-3912, Fax : 281-573-4921

Emergency Phone: 800-424-9300 CHEMTREC

Customer Service Orders: 888-425-8878, Fax: 912-880-8002

2. COMPOSITION/INFORMATION ON INGREDIENTS

Identification of the preparation :

Chemical Name	CAS-No	Weight %
Potassium amyl xanthate	2720-73-2	90

3. HAZARDS IDENTIFICATION

WARNING! Spontaneously Combustible. Eye contact will result in mild to severe eye irritation. Contact with skin will result in mild to severe burns. Ingestion will irritate mouth, throat and gastrointestinal tract. Inhalation of dust, vapors or mist may cause irritation of the respiratory airway. Solution is strongly alkaline.

4. FIRST AID MEASURES

- Inhalation :** Move to fresh air immediately.. If breathing is labored, administer oxygen. If not breathing, give artificial respiration. Immediately call a physician.
- Skin contact :** Remove soaked clothing immediately and wash affected skin with soap and water. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Launder contaminated clothing before reuse.
- Eye contact :** Rinse thoroughly with plenty of water, also under the eyelids. In case of persistent eye irritation, consult a physician.
- Ingestion :** Do not induce vomiting. Rinse mouth. (Never give anything by mouth to an unconscious person.) Drink large quantities of water and get medical assistance.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : foam, carbon dioxide (CO2), or dry chemical.

- Special fire-fighting precautions :** Xanthates upon aging, heating or exposure to moisture will generate carbon disulfide (CS₂) vapors and spontaneous combustion can occur. Storage area should be equipped with a forced exhaust to prevent buildup of vapors. Containers should be carefully grounded.
- Protective equipment for firefighters :** Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions :** Eliminate ignition sources. Avoid eye or skin contact. Wear personal protective equipment.
- Environmental precautions :** Do not contaminate water.
- Methods for cleaning up :** Small spills: Contain with absorbent material. Shovel reclaimed material and absorbent into drums for disposal. Large spills: Dike to prevent runoff and reclaim for disposal.

7. HANDLING AND STORAGE

- Handling :** Avoid contact with eyes. Use only in well ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated skin contact. Ground containers when transferring material from one to another. Use caution opening containers with xanthates of unknown age for any CS₂ vapor accumulation.
- Storage :** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Store containers out of direct sunlight at moderate temperatures. Properly ground storage containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Exposure guidelines :** Carbon disulfide - ACGIH TLV = 10 ppm (TWA)
- Engineering controls :** Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.
- Personal protection equipment**
- **Respiratory protection :** None generally required. Use NIOSH/OSHA approved full face respirator with a dust/mist cartridge if the recommended exposure limit is exceeded.
 - **Hand protection :** Impermeable gloves of neoprene, nitrile, PVC, natural rubber, viton or butyl rubber.
 - **Eye protection :** Face shield with chemical splash goggles. Eyewash fountain should be readily available.
 - **Skin protection :** Chemical resistant apron or protective suit. Launder contaminated clothing before reuse. Safety shower should be readily available.
- Hygiene measures :** Wash hands before breaks and at the end of workday. Handle in accordance with good industrial hygiene and safety practice. Contaminated clothing should be laundered before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form :	solid
Color :	yellow to yellow-green pellets
Odor :	strong carbon disulfide like odor
pH :	Not applicable
Freezing point (°C) :	Not applicable
Boiling point/range (°C) :	Not applicable
Flash point (°C) :	54-55 F (12-13C); carbom disulfide: -22F (-30C), LFL: 1.3% UFL: 50%
Vapour pressure (mm Hg) :	Not applicable
Bulk density :	specific gravity: 0.94
Water solubility :	complete

10. STABILITY AND REACTIVITY

Stability :	Product is stable if stored and handled under recommended conditions. Hazardous polymerization will not occur.
Conditions to avoid :	Strong oxidizers can cause fire or explosions. Acids will accelerate the hydrolysis of xanthates. Incompatible with cooper, brass, bronze. Avoid high temperatures and moisture
Hazardous decomposition products :	carbon disulfide, trithiocarbonate, amyl alcohol

11. TOXICOLOGICAL INFORMATION

Acute toxicity

- Oral :	LD50/oral/rat: 1000-2000 mg/kg; intravenous LD50 mouse: 99 mg/kg
- Dermal :	No data available
- Inhalation :	xanthate salts may cause irritation of the nose, throat and respiratory tract

Irritation

- Skin :	may cause mild to severe skin irritation
- Eyes :	may cause mild to severe eye irritation and a burning sensation

Chronic toxicity : Not listed as a carcinogen by NTP, IARC or OSHA

Other information : Ingestion may cause mild to severe irritation to the mouth, throat and gastrointestinal tract including nausea, vomiting and diarrhea

12. ECOLOGICAL INFORMATION

Ecotoxicity:

- **Fish** LC50/rainbow trout/96h = 18-75 mg/l; *Salmo gairdnerii* LC50: 70-85 mg/l

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products :

Solid xanthates do not meet the criteria for hazardous waste under 40 CFR 261. Solutions may have a pH of 12.5 which meets the criteria for a D002 corrosive waste and a flash point of 55 F which meets the criteria of a D001 waste. Dispose of in compliance with all applicable regulations.

14. TRANSPORT INFORMATION

ADR/RID	Proper shipping name : Xanthates, 4.2, UN3342, III		
	Hazard class: 4.2	Packing group: IIIII	UN-No: 3342
D.O.T.	Proper shipping name : Xanthates, 4.2, UN3342, III		
	Hazard class: 4.2	Packing group: III	UN-No: 3342
IMO	Proper shipping name : Xanthates, 4.2, UN3342, III		
	Hazard class: 4.2	Packing group: III	UN-No: 3342
ICAO/IATA	Proper shipping name : Xanthates, 4.2, UN3342, III		
	Hazard class: 4.2	Packing group: III	UN-No: 3342
	Transport label: Spontaneously combustible		
Canada	Proper shipping name : Xanthates, 4.2, UN3342, III		
	Hazard class: 4.2	Packing group: III	UN-No: 3342
	Transport label: Spontaneously combustible		

15. REGULATORY INFORMATION

RCRA status :	Solid Not a hazardous waste.
Reportable quantity (40 CFR 302) :	Not applicable
Threshold planning quantity (40 CFR 355)	Not applicable
California Proposition 65 information :	Not applicable

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16. OTHER INFORMATION

Person to contact : Regulatory Affairs Manager

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.