

Chromatography Media

Safety Data Sheet
Cellufine™ Formyl

1. Product & Company Identification

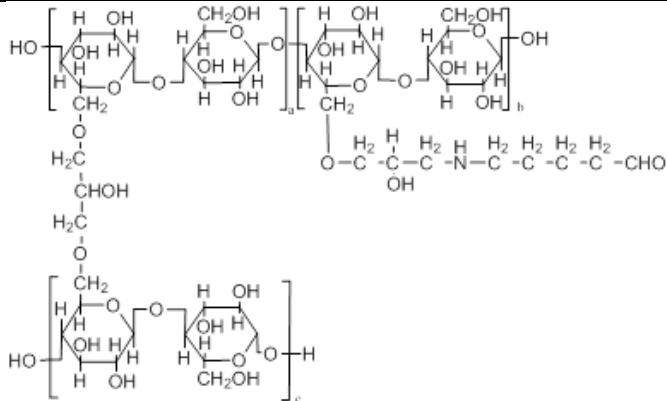
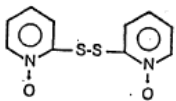
Product Name : Cellufine Formyl
General Use : Liquid Chromatography Media
Product Description : Beads slurry of cross -linked cellulose containing formyl group in acidic buffer solution.
SDS Number : CPS-F-0011M-USA
Manufacturer
 Company Name : JNC CORPORATION
 Address : Shin-Otemachi BLDG., 2-1, Otemachi 2-chome, Chiyoda-ku, Tokyo
 100-8105, Japan
 Tel : +81-3-3243-6150
 Fax : +81-3-3243-6219
Emergency telephone number : +81-3-3243-6150

2. Hazards identification

Hazard classification:
 Not classified
GHS label elements:
 Not applicable
Unclassified hazards:
 May be harmful if inhaled and ingested.
 May cause eye and skin irritation.
Percentage of ingredients with unknown toxicity:
 3%

3. Composition/Information on ingredients

Classification of the Substance or Mixture: Mixture

Component	Wt %	Chemical formula	CAS No.
Cellufine Formyl	3		1613183-00-8
Water	95	H ₂ O	7732-18-5
Acetic acid	1	CH ₃ COOH	64-19-7
Sodium chloride	1	NaCl	7647-14-5
Sodium acetate	0.1	CH ₃ COONa	127-09-3
2,2'-Dithiobis-(Pyridine-N-Oxide)	0.01		3696-28-4

4. First aid measures

General advice

: Wash off immediately with soap and plenty of water. In the case of inhaling dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.

Inhalation

: Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult physician.

Eye

: Remove any contact lenses at once. Fresh eyes well with flooding amounts of running water for at least 15 minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a physician.

Skin

: Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, consult a physician.

Ingestion

: Rinse mouth and give plenty of water to dilute the substance. Never give anything by mouth to an unconscious person. Consult a

physician.

Protection to first-aides : Rescuers wear suitable protective equipment such as rubber gloves and tight-fitting safety goggles.

Note to physician : Treatment may vary with condition of victim and specifics of incident.

5. Fire-fighting measures

Flammable properties : No data available

Extinguishing media : Carbon dioxide, dry chemical powder, alcohol resistant foam, water

Specific hazards : Carbon monoxide and nitrogen oxide may be formed

Fire-fighting instructions : Wear full fire-fighting turnout gear (full banker gear) and respiratory protection (self-contained breathing apparatus).

6. Accidental release measures

Personal precautions : Remove ignition sources and ventilate area. In case of insufficient ventilation, wear suitable respiratory

Environmental precautions : Prevent spills from entering sewers, watercourses or low area.

Methods for clean up : Do not touch spilled material without suitable protection (See section 8). Take up spilled material with ashes or other absorbents. After material is completely picked up, wash the spill site with soap and water and ventilate the area. Put all waste in a plastic bag for disposal and seal it tightly.
Remove, clean, or dispose of contaminated clothing.

7. Handling and storage

Handling : Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Handle material with suitable protection.

Storage : After opened bottle store away from sunlight in a cool (2-8 °C {35.6-46.4 °F}) well –ventilated dry place.
Keep container tightly closed.

Incompatible products : Oxidizers, peroxides, acids, alkalis, anhydrides

8. Exposure controls/personal protection

Engineering measures : Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

Ventilation : Local exhaust; Necessary, Mechanical (General) ; Recommended

Control parameter

ACGIH : (Cellufine Formyl), None established
(Acetic acid) TLV-TWA 10ppm
TWA-STEL 15ppm

OSHA (PEL) : (Cellufine Formyl), None established
(Acetic acid) 10ppm

Personal protection	
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. Wear breathing
Hand protection	Apparatus if exposed to vapours/dusts/aerosols.
Eye protection	: Chemical resistant gloves
Skin protection	: Safety glasses (goggles)
	: Protective clothing

9. Physical and chemical properties

Appearance	: White-slightly garish slurry
Odor	: Characteristic Weakly acetic acid odor
Odor threshold	: Not available
pH	: 3
Boiling point	: Not available
Melting point	: Not available
Flash point	: Not available
Evaporation rate	: Not available
Flammability (solid, gas)	: Not available
Decomposition temperature	: Not available
Explosive limits	: Not available
Vapor pressure	: Not available
Vapor density	: Not available
Specific gravity	: Not available
Solubility in;	
Water	: Cellufine Formyl Insoluble liquid(acetic acid buffer) soluble
log Po/w	: Not available
Autoignition temperature	: Not available
Viscosity	: Not available

10. Stability and reactivity

Reactivity	: No data available
Chemical stability	: No data available
Condition to avoid	: Sunlight, heat
Incompatibility (material to avoid)	: Oxidizers, acids, alkalis
Hazardous decomposition products	: Carbon monoxide and nitrogen oxide may be formed
Hazardous polymerization	: Will not occur.

11. Toxicological information

The product itself has not been tested.

Acute toxicity

- (Acetic acid) : LD50 (oral, rat): 3310mg/kg
 : LD50 (skin, rabbit): 1060µL/kg
 : LC50 (ihl, mouse): 5620ppm/1Hr
- (Sodium Chloride) : LD50 (oral, rat): 3000mg/kg
 : LD50 (oral, mouse): 4000mg/kg
- (Sodium acetate) : LD50 (oral, rat): 3310mg/kg
 : LD50 (skin, mouse): >10g/kg
- (2,2'-Dithiobis-(Pyridine-N-Oxide)) : LD50 (oral, rat ♂): 1640mg/kg, LD50 (oral, rat ♀): 1240mg/kg
 : LD50 (skin, rabbit): >4000mg/kg
 : LC50 (ihl, rat): >200ppm/1Hr

Skin corrosion/irritation

- (Acetic acid) : Skin necrosis and burn and corrosion were observed with application of acetic acid at 50% or more of concentration in animal experiments. EU-Annex I: C; R35
- (Sodium Chloride) : rabbit 100mg/24hr mild
- (Sodium acetate) : rabbit 500mg/24hr mild
- (2,2'-Dithiobis-(Pyridine-N-Oxide)) : irritant

Serious eye damage/irritation

- (Acetic acid) : Liquid glacial acetate caused destructive damages to the eye in the rabbit and 10% of acetate caused permanent corneal injuries.
- (Sodium Chloride) : rabbit 100mg/24hr moderate
- (Sodium acetate) : rabbit 10mg/24hr mild
- (2,2'-Dithiobis-(Pyridine-N-Oxide)) : rabbit 100µL/24hr severe

Sensitization

: No data available

Germ cell mutagenicity

- : Ames test Acetic acid Negative
- Sodium acetate Negative
- 2,2'-Dithiobis-(Pyridine-N-Oxide) Negative

Reproductive toxicity

: No data available

STOT-single exposure

- (Acetic acid) : Influence of blood such as disseminated intravascular coagulations and severe hemolysis was seen in humans. (PATTY (5th, 2001))
 Inhalation may cause lung oedema, but only after initial corrosive effects on eyes and/or airways have become manifest. 47 igs exposed for one hour to conc. up to 568 ppm of acetic acid developed bronchial constriction (ICSC)

STOT-repeated exposure

: No data available

Aspiration hazard

: No data available

12. Ecological information

The product itself has not been tested.

Ecotoxicity			
(Acetic acid)	: Fish	Lepomis macrochirus	LC50 76mg/L/96h
	Crustacea	Daphina magna	EC50 47mg/L/24h
(Sodium chloride)	: Crustacea	Daphina magna	EC50 >1000mg/L/48h
(Sodium Acetate)	: Fish	Lepomis macrochirus	LC50 9675mg/L/96h
Biodegradability	: No data available		
Bioaccumulation	: No data available		
Mobility in soil	: No data available		
Other information	: No data available		

13. Disposal consideration

Burn in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local or state and federal laws and regulations (contact country, local or state environmental agency for specific rules).

14. Transport information

Transport Of Dangerous Goods Model Regulations	: Not classified.
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15. Regulatory information

US Regulations	: Not classified
EU Regulations	: Not classified

16. Other information

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