

Issuing Date 19-Dec-2019

Revision date 25-Aug-2023
Revision Number 3**1. Identification**

Product Name Cellufine Formyl

Safety data sheet number CPS-F-0011M

Registration Number(s) PPN-FM-00006

Details of the supplier of the safety data sheet**Manufacturer**

JNC Corporation,
Shin Otemachi Bldg.,2-1,Otemachi 2-Chome,Chiyoda-ku,Tokyo 100-8105 Japan
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Emergency telephone number +81-3-3243-6150

Recommended use of the chemical and restrictions on use

Recommended Use Liquid Chromatography

Restrictions on use Please do not use for other than recommended use.

2. Hazard(s) identification**GHS Classification**

Acute toxicity - Oral	Classification not possible
Acute toxicity - Dermal	Classification not possible
Acute toxicity - Inhalation (Gases)	Classification not applicable
Acute toxicity - Inhalation (Vapors)	Classification not possible
Acute toxicity - Inhalation (Dusts/Mists)	Classification not possible
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Respiratory sensitization	Classification not possible
Skin sensitization	Classification not possible
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Specific target organ toxicity (single exposure)	Category 2
Category 2 blood. Respiratory system.	
Specific target organ toxicity (repeated exposure)	Classification not possible
Aspiration hazard	Not classified
Acute aquatic toxicity	Classification not possible
Chronic aquatic toxicity	Not classified
Ozone	Classification not possible

GHS label elements



Signal word Warning

Hazard statements

Causes skin irritation

Causes serious eye irritation

May cause damage to organs

May cause damage to the following organs: blood, Respiratory system.

Precautionary statements

Prevention

- Wash face, hands and any exposed skin thoroughly after handling
- Do not breathe dust/fume/gas/mist/vapors/spray
- Do not eat, drink or smoke when using this product
- Wear protective gloves/clothing and eye/face protection

Response

- Specific measures (see supplemental first aid instructions on this label)
- IF exposed or concerned: Call a POISON CENTER or doctor
- IF IN EYES: 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
- IF ON SKIN: Wash with plenty of water and soap
- If skin irritation occurs: Get medical advice/attention
- Take off contaminated clothing and wash it before reuse

Storage

- Store locked up

Disposal

- Dispose of contents/container to an approved waste disposal plant

Other hazards

No information available.

3. Composition/information on Ingredients

Pure substance/mixture Mixture

Chemical name	CAS No	Weight-%	ENCS Inventory	ENCS Number	ISHL Inventory	ISHL No
Cellufine Formyl	1613183-00-8	3	No information available		No information available	
water	7732-18-5	95	Existing	-	No information available	
Acetic acid	64-19-7	1	Existing	(2)-688	Existing	(2)-688
Sodium chloride	7647-14-5	1	Existing	(1)-236	Existing	(1)-236
Sodium acetate	127-09-3	0.1	Existing	(2)-692	Existing	2-(4)-581
2,2'-Dithiobis-(Pyridine-N-Oxide)	3696-28-4	0.01	Existing	(5)-755	Existing	(5)-755

4. First-aid measures

General advice	Show this safety data sheet to the doctor in attendance.
In case of inhalation	Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.
In case of skin contact	If symptoms persist, call a physician. Wash off immediately with soap and plenty of water for at least 15 minutes.
In case of eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
In case of ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician.
Most important symptoms/effects, acute and delayed	May cause redness and tearing of the eyes. Burning sensation.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).
Note to physicians	Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	No information available.
Special Extinguishing Media	
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
-	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.
For emergency responders	Use personal protection recommended in Section 8.
Environmental precautions	Prevent further leakage or spillage if safe to do so.
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Other information Refer to protective measures listed in Sections 7 and 8.

7. Handling and Storage

Handling

Local and General Ventilation Perform local exhaust and general ventilation in item 8.

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Prevents Handling of Incompatible Substances or Mixtures See Section 10, Reactivity, Conditions to Avoid, Dangerous Goods to Touch.

Hygiene Measures Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

Storage

Storage Conditions Store under refrigeration at 2°C to 8°C (35.6°F to 46.4°F). Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

Material of vessels and packaging Store in a sealed container to shield light.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure guidelines

Chemical name	Japan Society of Occupational Health	ISHL Working Environmental Evaluation Standards - Administrative Control Levels	ACGIH TLV
Acetic acid 64-19-7	TWA: 10 ppm TWA: 25 mg/m ³	-	STEL: 15 ppm TWA: 10 ppm

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Engineering controls Showers
Eyewash stations
Ventilation systems.

Environmental exposure controls No information available.

Personal protective equipment

Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Hand protection	Wear suitable protective gloves. Impervious gloves.
Eye/face protection	Tight sealing safety goggles. Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear suitable protective clothing. Impervious clothing. Chemical resistant apron. Antistatic boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	White-slightly grayish wet beads	
Physical state	Liquid	
Color	white ~ Grayish white	
Odor	Acetic acid odor	
Property	Values	Remarks • Method
Melting point / freezing point	No data available	
Initial boiling point and boiling range	No data available	
Flammability	No data available	
Upper/lower flammability or explosive limits		
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	Tag Closed Cup
Evaporation rate	No data available	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
pH	3	
Viscosity		
Kinematic viscosity	No data available	
Dynamic viscosity	No data available	
Water solubility	No data available	
Solubility(ies)	No data available	
Partition Coefficient (n-octanol/water)	No data available	
Vapor pressure	No data available	
Density and/or relative density		
Relative density	No data available	
Vapor density	No data available	
Bulk density	No data available	
Relative vapor density	No data available	
Particle characteristics		
Particle Size		
Particle Size Distribution		

Other information

10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon monoxide.
Explosion data	
Sensitivity to static discharge	None.
Sensitivity to mechanical impact	None.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	300,000.00 mg/kg
ATEmix (dermal)	95,840.90 mg/kg ppm
ATEmix (inhalation-dust/mist)	1,140.00 mg/l

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
water	> 90 mL/kg (Rat)	-	-
Acetic acid	= 3310 mg/kg (Rat)	= 1060 mg/kg (Rabbit)	= 11.4 mg/L (Rat) 4 h
Sodium chloride	= 3 g/kg (Rat)	> 10000 mg/kg (Rabbit)	> 42 mg/L (Rat) 1 h
Sodium acetate	= 3530 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 30 g/m ³ (Rat) 1 h

Abbreviations and acronyms

Rat: Rat

Rabbit: Rabbit

Symptoms Redness. May cause redness and tearing of the eyes.

Product Information

Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Specific test data for the substance or mixture is not available.
Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Skin contact	Expected to be an irritant based on components. Causes skin irritation. (based on components). Specific test data for the substance or mixture is not available.

Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
Skin corrosion/irritation	Classification based on data available for ingredients. Causes skin irritation. May cause skin irritation.
Serious eye damage/eye irritation	Classification based on data available for ingredients. Causes serious eye irritation.
Target organ effects	Respiratory system. Eyes. Skin. Teeth.
STOT - single exposure	Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). May cause damage to organs. May cause damage to the following organs: blood, Respiratory system.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Crustacea
Acetic acid	-	LC50: =79mg/L (96h, Pimephales promelas) LC50: =75mg/L (96h, Lepomis macrochirus)	EC50: =65mg/L (48h, Daphnia magna)
Sodium chloride	-	LC50: 5560 - 6080mg/L (96h, Lepomis macrochirus) LC50: =12946mg/L (96h, Lepomis macrochirus) LC50: 6020 - 7070mg/L (96h, Pimephales promelas) LC50: =7050mg/L (96h, Pimephales promelas) LC50: 6420 - 6700mg/L (96h, Pimephales promelas) LC50: 4747 - 7824mg/L (96h, Oncorhynchus mykiss)	EC50: =1000mg/L (48h, Daphnia magna) EC50: 340.7 - 469.2mg/L (48h, Daphnia magna)
Sodium acetate	-	LC50: >100mg/L (96h, Danio rerio)	EC50: >1000mg/L (48h, Daphnia magna)

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
Acetic acid 64-19-7	-0.17

Mobility in soil No information available.

Hazardous to the ozone layer Classification not possible. Based on available data, the classification criteria are not met.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste from residues/unused products

Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

14. TRANSPORT INFORMATION

IMDG

Special Provisions

Not regulated

Non-hazardous under these transport regulations. Aqueous solutions containing a maximum of 24% alcohol by volume are not subject to these transport regulations

ADR

Special Provisions

Not regulated

Non-hazardous under these transport regulations. Aqueous solutions containing a maximum of 24% alcohol by volume are not subject to these transport regulations

IATA

Special Provisions

Not regulated

Non-hazardous under these transport regulations. Aqueous solutions containing a maximum of 24% alcohol by volume are not subject to these transport regulations

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

Pollutant Release and Transfer Register (PRTR)

Not applicable

Industrial Safety and Health Law

Harmful Substances Whose Names Are to be Indicated on the Label

Article 57-1 of ISHL, Article 18, Item 1, Item 2, Appended Table 9 and Item 3, Appended Table 3 of Order for Enforcement

Chemical name	Ministerial Ordinance Name	CAS No	Content rate %	Implementation date
Acetic acid	Acetic acid	64-19-7	1.0	

ISHL Notifiable Substances

Article 57-2 of the ISHL, Article 18-2, Item 1, Item 2, Appended Table 9 and Item 3, Appended Table 3 of Order for Enforcement

Harmful substances requiring risk assessment

Article 57-3 of the ISHL

Chemical name	Ministerial Ordinance Name	CAS No	Content rate %	Implementation date
Acetic acid	Acetic acid	64-19-7	1.0	

Harmful substances requiring risk assessment

Article 57-3 of the ISHL

Corrosive liquid

Corrosive liquids identified in Article 326 of the Ordinance of the Industrial Safety and Health Law which requires an employer

to take measures for facilities that use the liquids in pressurized power feeding and through hoses

Poisonous and Deleterious Substances Control Law

Not applicable

Fire Service Law:

No

Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (CSCL)

No

Ship (Marine Transportation) Safety Act

See section 14 for more information

Civil Aeronautics Act

See section 14 for more information

Act on Prevention of Marine Pollution and Maritime Disaster

Not applicable

Act on Port Regulation Law

See section 14 for more information

International Regulations

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

TSCA	Does not comply
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
IECSC	Not included
AIIC	Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

16. Other Information

Prepared By JNC Corporation
Revision date 25-Aug-2023
Revision Note 2.

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitizers		

Legend

IMDG	International Maritime Dangerous Goods (IMDG)	ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA	International Air Transport Association (IATA)		

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Chemicals Agency
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Disclaimer

This SDS complies with the requirements of JIS Z 7253:2019 (Japan). 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.

End of Safety Data Sheet