

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  
 TEL:+81-3-3243-6150 Fax:+81-3243-6219

**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

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

#### 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray. Alcohol resistant foam.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	No information available.
<b>Special Extinguishing Media</b> <b>Large Fire</b>	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

<b>Personal precautions, protective equipment and emergency procedures</b>	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	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 <sup>3</sup>	-	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

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Appearance</b>	White-slightly grayish wet beads
<b>Physical state</b>	Liquid
<b>Color</b>	white ~ Grayish white
<b>Odor</b>	Acetic acid odor

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>Melting point / freezing point</b>	No data available	
<b>Initial boiling point and boiling range</b>	No data available	
<b>Flammability</b>	No data available	
<b>Upper/lower flammability or explosive limits</b>		
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Flash point</b>	No data available	Tag Closed Cup
<b>Evaporation rate</b>	No data available	
<b>Autoignition temperature</b>	No data available	
<b>Decomposition temperature</b>	No data available	
<b>pH</b>	3	
<b>Viscosity</b>		
<b>Kinematic viscosity</b>	No data available	
<b>Dynamic viscosity</b>	No data available	
<b>Water solubility</b>	No data available	
<b>Solubility(ies)</b>	No data available	
<b>Partition Coefficient (n-octanol/water)</b>	No data available	
<b>Vapor pressure</b>	No data available	
<b>Density and/or relative density</b>		
<b>Relative density</b>	No data available	
<b>Vapor density</b>	No data available	
<b>Bulk density</b>	No data available	
<b>Relative vapor density</b>	No data available	
<b>Particle characteristics</b>		
<b>Particle Size</b>		
<b>Particle Size Distribution</b>		

### Other information

## 10. STABILITY AND REACTIVITY

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

<b>ATEmix (oral)</b>	300,000.00 mg/kg
<b>ATEmix (dermal)</b>	95,840.90 mg/kg ppm
<b>ATEmix (inhalation-dust/mist)</b>	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 <sup>3</sup> ( Rat ) 1 h

Abbreviations and acronyms

Rat: Rat

Rabbit: Rabbit

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

#### Product Information

<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Specific test data for the substance or mixture is not available.
<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
<b>Skin contact</b>	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.

<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
<b>Skin corrosion/irritation</b>	Classification based on data available for ingredients. Causes skin irritation. May cause skin irritation.
<b>Serious eye damage/eye irritation</b>	Classification based on data available for ingredients. Causes serious eye irritation.
<b>Target organ effects</b>	Respiratory system. Eyes. Skin. Teeth.
<b>STOT - single exposure</b>	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**

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

**Legend:**

<b>TSCA</b>	- United States Toxic Substances Control Act Section 8(b) Inventory
<b>DSL/NDSL</b>	- Canadian Domestic Substances List/Non-Domestic Substances List
<b>EINECS/ELINCS</b>	- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
<b>ENCS</b>	- Japan Existing and New Chemical Substances
<b>IECSC</b>	- China Inventory of Existing Chemical Substances
<b>KECL</b>	- Korean Existing and Evaluated Chemical Substances
<b>PICCS</b>	- Philippines Inventory of Chemicals and Chemical Substances
<b>AIIC</b>	- Australian Inventory of Industrial Chemicals

**16. Other Information**

<b>Prepared By</b>	JNC Corporation
<b>Revision date</b>	25-Aug-2023
<b>Revision Note</b>	2.

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

**Legend Section 8: Exposure controls/personal protection**

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

**Legend**

<b>IMDG</b>	International Maritime Dangerous Goods (IMDG)	<b>ADR</b>	European Agreement concerning the International Carriage of Dangerous Goods by Road
<b>IATA</b>	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**