

Issuing Date 25-Dec-2019

Revision date 25-Aug-2023
Revision Number 2**1. Identification**

Product Name Cellufine Phosphate
Safety data sheet number CPS-F-0032M
Registration Number(s) PPN-FM-00016

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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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**

| | |
|--|-------------------------------|
| Flammable liquids | Category 3 |
| 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 | Classification not possible |
| Serious eye damage/eye irritation | Category 2B |
| Respiratory sensitization | Classification not possible |
| Skin sensitization | Classification not possible |
| Germ cell mutagenicity | Classification not possible |
| Carcinogenicity | Category 1A |
| Reproductive toxicity | Category 1A |
| Specific target organ toxicity (single exposure) | Classification not possible |
| Specific target organ toxicity (repeated exposure) | Category 1 |
| Category 1 Liver. | |
| Category 2 Central nervous system. | |
| Aspiration hazard | Classification not possible |
| Acute aquatic toxicity | Classification not possible |
| Chronic aquatic toxicity | Not classified |
| Ozone | Classification not possible |

GHS label elements

**Signal word**

Danger

Hazard statements

Causes eye irritation

May cause cancer

May damage fertility or the unborn child

Causes damage to organs through prolonged or repeated exposure

Flammable liquid and vapor

Causes damage to the following organs through prolonged or repeated exposure: Liver.

May cause damage to the following organs through prolonged or repeated exposure: Central nervous system.

Precautionary statements**Prevention**

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Wear protective gloves/clothing and eye/face protection
- 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
- Ground and bond container and receiving equipment
- Use non-sparking tools
- Take action to prevent static discharges
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- Keep container tightly closed
- Use explosion-proof electrical/ ventilating / lighting/ .? / equipment

Response

- IF exposed or concerned: Get medical advice/attention
- 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 (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]
- In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

Storage

- Store locked up
- Store in a well-ventilated place. Keep cool

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 Phosphate | 9015-14-9 | 10 | Existing | (8)-571 | Existing | (8)-571 |
| water | 7732-18-5 | 72-82 | Existing | - | No information | |

| | | | | | | |
|---------|---------|------|----------|---------|-----------------------|---------|
| Ethanol | 64-17-5 | 8-18 | Existing | (2)-202 | available Existing | (2)-202 |
|---------|---------|------|----------|---------|-----------------------|---------|

4. First-aid measures

| | |
|---|---|
| General advice | IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance. |
| In case of inhalation | Remove to fresh air. |
| In case of skin contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. |
| In case of eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists. Remove contact lenses, if present and easy to do. Continue rinsing. |
| In case of ingestion | Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician. |
| Most important symptoms/effects, acute and delayed | No information available. |
| Self-protection of the first aider | Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. |
| Note to physicians | Treat symptomatically. |

5. Fire-fighting measures

| | |
|---|---|
| Suitable Extinguishing Media | Dry chemical. Carbon dioxide (CO ₂). Water spray. Alcohol resistant foam. |
| Unsuitable extinguishing media | Do not scatter spilled material with high pressure water streams. |
| Specific hazards arising from the chemical | Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |
| 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 | Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take |
|--|--|

| | |
|--|---|
| | precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. |
| For emergency responders | Use personal protection recommended in Section 8. |
| Environmental precautions | Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. |
| Methods for containment | Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. |
| Methods for cleaning up | Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. |
| Prevention of secondary hazards | Promptly remove all ignition sources. Prohibition of smoking, sparks and flames in the vicinity. |
| Other information | Ventilate the area. Refer to protective measures listed in Sections 7 and 8. |

7. Handling and Storage

Handling

| | |
|---|---|
| Technical measures | Wear appropriate protective equipment. Handle in a place with adequate ventilation. Do not touch eyes, skin, clothing. Away from heat, sparks and open flames. Do not inhale or swallow. |
| Local and General Ventilation | Perform local exhaust and general ventilation in item 8. |
| Advice on safe handling | Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. 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. Remove contaminated clothing and shoes. |
| Prevents Handling of Incompatible Substances or Mixtures | See Section 10, Reactivity, Conditions to Avoid, Dangerous Goods to Touch. |
| Hygiene Measures | Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the 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 |
|--------------------|--------------------------------------|---|----------------|
| Ethanol 64-17-5 | - | - | STEL: 1000 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 colorless

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---|----------------------------|-------------------------|
| 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 | 35 - 38 °C / 95 - 100.4 °F | Tag Closed Cup |

| | |
|--|-------------------|
| Evaporation rate | No data available |
| Autoignition temperature | No data available |
| Decomposition temperature | No data available |
| pH | No data available |
| 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 | Yes. |
| Sensitivity to mechanical impact | None. |

11. TOXICOLOGICAL INFORMATIONAcute toxicity**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document mg/kg ppm
 ATEmix (inhalation-dust/mist) 649.40 mg/l

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------|--------------------|-------------|-----------------|
| water | > 90 mL/kg (Rat) | - | - |

| | | | |
|---------|----------------------|---|--|
| Ethanol | = 7060 mg/kg (Rat) | - | = 116.9 mg/L (Rat) 4 h = 133.8 mg/L (Rat) 4 h |
|---------|----------------------|---|--|

Abbreviations and acronyms

Rat: Rat

Symptoms May cause redness and tearing of the eyes.

Product Information

Ingestion Specific test data for the substance or mixture is not available.

Inhalation Specific test data for the substance or mixture is not available.

Skin contact 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 eye irritation. May cause redness, itching, and pain.

Skin corrosion/irritation May cause skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes eye irritation.

Carcinogenicity Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical name | Japan | IARC | Japan - ISHL Designated Carcinogens |
|--------------------|-------|---------|-------------------------------------|
| Ethanol 64-17-5 | 1A | Group 1 | |

Legend

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Reproductive toxicity Classification based on data available for ingredients. May damage fertility or the unborn child.

Target organ effects Liver. Respiratory system. Eyes. Skin. Central nervous system. Blood. Reproductive system.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Causes damage to the following organs through prolonged or repeated exposure: Liver.

May cause damage to the following organs through prolonged or repeated exposure: Central nervous system.

12. ECOLOGICAL INFORMATION

Ecotoxicity

| Chemical name | Algae/aquatic plants | Fish | Crustacea |
|---------------|----------------------|------|-----------|
|---------------|----------------------|------|-----------|

| | | | |
|---------|---|---|--|
| Ethanol | - | LC50: 12.0 - 16.0mL/L (96h, Oncorhynchus mykiss) LC50: >100mg/L (96h, Pimephales promelas) LC50: 13400 - 15100mg/L (96h, Pimephales promelas) | LC50: 9268 - 14221mg/L (48h, Daphnia magna) EC50: =2mg/L (48h, Daphnia magna) |
|---------|---|---|--|

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Component Information

| Chemical name | Partition coefficient |
|--------------------|-----------------------|
| Ethanol 64-17-5 | -0.35 |

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 |
|---------------|----------------------------|---------|----------------|---------------------|
| Ethanol | Ethanol | 64-17-5 | 18 | |

ISHL Notifiable SubstancesArticle 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 |
|---------------|----------------------------|---------|----------------|---------------------|
| Ethanol | Ethanol | 64-17-5 | 18 | |

Harmful substances requiring risk assessment

Article 57-3 of the ISHL

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

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