

SAFETY DATA SHEET

Issuing Date: 01-Nov-2018

Version 1

Human iPSC

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Human iPSC
Product code HUMAN IPSC
Product Use For research use only.

Manufactured by
 FUJIFILM Cellular Dynamics, Inc.
 525 Science Drive
 Madison, WI 53711

SDSs are available at the following website(s): <https://fujifilmcdi.com>

Company Phone Number U.S.A: 877-320-6688
 U.S.A: 608-310-5100

Emergency Telephone Transport-CHEMTREC Inside NA: 800-424-9300
 Transport-CHEMTREC Outside NA: 703-527-3887
 Transport-CANUTEC Inside Canada: 613-996-6666
 Medical Emergency (24 hour): 877-935-7387

E-mail fcdi-support@fujifilm.com

2. HAZARDS IDENTIFICATION

Classification

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

GHS Label elements, including precautionary statements

Not classified

Precautionary Statements

Prevention
 Not applicable

Response
Not applicable

Storage
Not applicable

Disposal
Not applicable

Hazards not otherwise classified (HNOC)
Not classified

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% |
|--------------------|---------|----------|
| Dimethyl Sulfoxide | 67-68-5 | 7-13% |

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures for different exposure routes

| | |
|-----------------------|---|
| General advice | If symptoms persist, call a physician. |
| Eye contact | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| Skin contact | Wash off immediately with plenty of water. Get medical attention if irritation develops and persists. |
| Inhalation | Move to fresh air. If symptoms persist, call a physician. |
| Ingestion | If swallowed, do not induce vomiting - seek medical advice. |

Most important symptoms/effects, acute and delayed

None known.

Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

None known.

Specific hazards arising from the chemical

None known.

Hazardous Combustion Products

Carbon oxides. Sulfur oxides.

Explosion Data

Sensitivity to Mechanical Impact none

Sensitivity to Static Discharge none

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid contact with skin, eyes or clothing.

Environmental precautions

Prevent product from entering drains.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use personal protective equipment. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Keep in properly labeled containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH | AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs |
|--------------------|-----------|----------|------------|---|
| Dimethyl Sulfoxide | | | | 250 ppm TWA |

Exposure controls

Engineering Measures Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Tightly fitting safety goggles.

Skin and body protection Wear protective gloves/clothing.

| | |
|---------------------------------------|---|
| Respiratory protection | If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. |
| General Hygiene Considerations | When using do not eat, drink or smoke. Take off contaminated clothing and wash before reuse. Regular cleaning of equipment, work area and clothing is recommended. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|--------------------------------------|------------------|--------------------------------------|-----------------|
| Appearance | clear | Odor | Slight |
| Odor Threshold | Not available | Physical State @20°C | Liquid |
| pH | Not available | Molecular Weight | Not available |
| Specific Gravity | Not available | Autoignition temperature | Not available |
| Flash point | Not available | Boiling point / boiling range | Not available |
| Decomposition temperature | Not available | Freezing Point | 24.8 °F / -4 °C |
| Melting point / melting range | Not available | Explosive Properties | Not available |
| Flammability Limit in Air | Not available | Partition coefficient | Not available |
| Oxidizing Properties | Not available | Vapor Pressure | Not available |
| Solubility | Soluble in water | Density | Not available |
| Evaporation rate | Not available | VOC (g/l) | 0 |
| Vapor density | Not available | | |
| VOC (lb/gal) | 0 | | |
| Dynamic viscosity | Not available | | |

10. STABILITY AND REACTIVITY

Reactivity

Stable under recommended storage conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

None known.

Incompatible Materials

Strong oxidizing agents. Strong acids. Strong bases. Acid chlorides.

Hazardous Decomposition Products

None known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information**Acute toxicity****Inhalation**

Non-irritating during normal use.

Eyes

Non-irritating during normal use.

Skin

Non-irritating during normal use.

Ingestion

Ingestion may cause stomach discomfort.

Component Information

| Chemical Name | Oral LD50 | Dermal LD50 | LC50 (lethal concentration) |
|--------------------|---|-------------------|-----------------------------|
| Dimethyl Sulfoxide | = 14500 mg/kg (Rat) = 28300 mg/kg (Rat) | = 40 g/kg (Rat) | > 5.33 mg/L (Rat) 4 h |

Information on toxicological effects

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Irritation**

Non-irritating during normal use.

Corrosivity

No information available.

Sensitization

No information available.

Mutagenic Effects

No information available.

Reproductive Toxicity

No information available.

Carcinogenicity

None known.

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Target Organ Effects

None known.

Aspiration hazard

No information available.

Numerical measures of toxicity - Product Information

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

ATEmix (dermal) 40000 mg/kg

ATE: Acute toxicity estimate**12. ECOLOGICAL INFORMATION****Ecotoxicity**

The environmental impact of this product has not been fully investigated.

| Chemical Name | Algae toxicity | Toxicity to fish | Toxicity to microorganisms | Toxicity to daphnia and other aquatic invertebrates |
|--------------------|----------------|--|----------------------------|---|
| Dimethyl Sulfoxide | | Pimephales promelas: 34000 mg/L at 96 h | | |

Persistence and degradability

No information available.

Bioaccumulation

| Chemical Name | Octanol Water Partition Coefficient (log pow) |
|--------------------|---|
| Dimethyl Sulfoxide | -2.03 |

Mobility

No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Dispose of in accordance with local regulations.

Contaminated packaging

Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated.

MEX Not regulated

ICAO Not regulated

IATA Not regulated

IMDG Not regulated

ADR/RID Not regulated

ADN Not regulated

15. REGULATORY INFORMATION

International Inventories

| | |
|---------------|-----|
| TSCA | Yes |
| DSL/NDSL | Yes |
| PICCS | Yes |
| EINECS/ELINCS | Yes |
| ENCS | Yes |
| IECSC | Yes |
| KECL | Yes |
| AICS | Yes |

***Yes - All component(s) of this product are included or are exempt from listing on the inventory.**

***No - Indicates the component(s) of this product are either not listed or have not been determined to be listed on the inventory.**

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
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

TSCA Sections 4, 5 and 12(b)

This product does not contain any chemicals regulated by TSCA Sections 4, 5 or 12(b).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Classification is shown in section 2 of this SDS

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|--------------------|---------------|------------|--------------|----------|--------------|
| Dimethyl Sulfoxide | | X | | | |

International Regulations

Canada - NDSL

This product does not contain any NDSL chemicals.

Mexico - Grade

No information available

Mexico - Carcinogen Status and Exposure Limits

No information available

Other Regulations

No information available

16. OTHER INFORMATION

| | | | | |
|-------------|------------------------|-----------------------|--------------------------|--|
| NFPA | Health Hazard 1 | Flammability 0 | Instability 0 | Physical and chemical hazards - |
| HMIS | Health Hazard 1 | Flammability 0 | Physical Hazard 0 | Personal protection B |

Prepared By FUJIFILM Environment, Health and Safety, phone: 800-473-3854

Revision Date 01-Nov-2018

Revision Note No information available

Disclaimer **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.**

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