



SAFETY DATA SHEET

Version 1

Issuing Date: 26-Oct-2020

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier **Product code** PUT.TE1 **Product Name** 1-100 10MG/G Putrescine in NaCl 1.2. Relevant identified uses of the substance or mixture and uses advised against **Product Use** Laboratory chemicals. Uses advised against No information available. 1.3. Details of the supplier of the safety data sheet Supplier FUJIFILM Europe B.V. Oudenstaart 1 5047 TK Tilburg The Netherlands Manufactured by FUJIFILM Irvine Scientific, Inc. 2511 Daimler Street Santa Ana, CA 92705 U.S.A. For further information, please contact: +31 13 579 19 11 _ _ **T** - 1 - -- 1- -- -

Company Phone Number	l elephone: +31 13 579 19 1
	Fax: +31 13 570 11 15

E-mail Address reach_feg@fujifilm.com

1.4. Emergency telephone number

Europe	+49 (0)211 5089 137 (9:00 a.m. to 6 p.m.)
United Kingdom	CHEMTREC UK: +(44)-870-8200418

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

Signal word

None

2.3. Other hazards

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Sodium chloride	231-598-3	7647-14-5	>98%	Not classified	no data available
Putrescine dihydrochloride [1,4-Diaminobutane]	206-375-9	333-93-7	0.5-1.5%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	no data available

Full text of H- and EUH-phrases: see section 16

4. FIRST AID MEASURES

4.1. Description of first aid measures

cian.
ated

4.2. Most important symptoms and effects, both acute and delayed

May cause redness, itching, and pain.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Dry chemical, CO2, water spray or alcohol-resistant foam.

Unsuitable Extinguishing Media

No information available.

5.2. Special hazards arising from the substance or mixture

None known.

Hazardous Combustion Products

Carbon oxides. Nitrogen oxides (NOx). Sodium oxides. Hydrogen chloride.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid contact with the skin and the eyes.

6.2. Environmental precautions

Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Avoid dust formation.

Use personal protective equipment. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

6.4. Reference to other sections

See section 7 for more information. See section 8 for more information. See Section 12 for additional Ecological Information. See section 13 for more information.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Laboratory chemicals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

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

Predicted No Effect Concentration No information available. (PNEC)

8.2. Exposure controls	
Engineering Measures	Ensure adequate ventilation, especially in confined areas.
Personal protective equipment Eye Protection Hand Protection Skin and body protection Respiratory protection	If splashes are likely to occur, wear safety glasses with side-shields. Wear protective gloves. Long sleeved clothing. No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
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.
Environmental Exposure Controls	No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Odor Threshold pH	No information available No information available No information available	Odor Physical state	No information available Solid
Boiling point / boiling range Autoignition temperature Melting point / melting range Flammability (solid, gas)	No information available No information available No information available No information available	Flash point Decomposition temperature Freezing Point Flammability Limit in Air	No information available No information available No information available No information available
Oxidizing Properties Specific Gravity Evaporation rate Vapor density Dynamic viscosity	No information available No information available No information available No information available	Explosive Properties Solubility Vapor Pressure Density Partition coefficient: n-octanol/water	No information available No information available No information available No information available No information available

10. STABILITY AND REACTIVITY

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4. Conditions to avoid

Freezing. Protect from moisture.

10.5. Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products

None under normal use conditions.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product Information

Acute toxicity Inhalation	Inhalation of dust in high concentration may cause irritation of respiratory system.
Eyes	Dust contact with the eyes can lead to mechanical irritation. May cause redness and tearing.
Skin	Causes mild skin irritation. Contact with dust can cause mechanical irritation or drying of the skin.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium chloride	= 3 g/kg (Rat)	> 10 g/kg (Rabbit)	> 42 g/m ³ (Rat) 1 h
<u>Chronic toxicity</u> Carcinogenicity	None known.		
Corrosivity	None known.		
Irritation	Mild skin irritant.		
Sensitization	None known.		
Reproductive Toxicity	None known.		
Mutagenic Effects	None known.		
Target organ effects	Eyes. Skin.		

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium chloride		Pimephales promelas: 6020 - 7070 mg/L at 96 h Pimephales promelas: 7050 mg/L at 96 h Pimephales promelas: 6420 - 6700 mg/L		340.7 - 469.2: 48 h Daphnia magna mg/L EC50 Static

	at 96 h	

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with federal, state and local regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.

	14. TRANSPORT INFORMATION
ADG	Not regulated
RID	Not regulated
<u>ADR</u>	Not regulated
IMDG	Not regulated
ICAO (air)	Not regulated
IATA	Not regulated
Special precautions for users	No information available.

15. REGULATORY INFORMATION

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

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Take note of Directive 94/33/EC on the protection of young people at work.

International Inventories

TSCA	Yes
EINECS/ELINCS	Yes
DSL/NDSL	Yes
AIICS	No
NZIoC	Yes

Legend

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

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

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

 AIICS - Australian Inventory of Industrial Chemicals

 NZIOC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

No information available.

16. OTHER INFORMATION

Prepared By	FUJIFILM Environment, Health and Safety, phone: (01) (800) 473-3854
Revision Date	26-Oct-2020
Revision Note	CLP Annex VI harmonized classification(s) and/or available REACH registration information are the primary data sources referenced in determining the classification of this product.

This safety data sheet complies with the requirements of: Regulation (EC) No 1272/2008.

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.