

Safety Data Sheet

This safety data sheet complies with the requirements of: WHS regulation 2011

Product name Fluoroprotein 6%

Section 1: Identification: Product identifier and chemical identity

Product Identifier

Product name Fluoroprotein 6%

Product code GFN1050-3-006

Other means of identification

Pure substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Sold to the general public No
Recommended use Fire extinguishing agent

Uses advised against Consumer use

Details of manufacturer or importer

Supplier

Tyco Fire Protection Products
Level 3, 95 Coventry Street,
Southbank, Australia-Victoria 3006
+613 9313 9711

For further information, please contact

Product Stewardship at 1-715-735-7411

Emergency Telephone Number

612 9037 2994 (Australia)

Section 2: Hazard(s) identification

GHS - Classification

Skin corrosion/irritation Category 2 - (H315)
Serious eye damage/eye irritation Category 2 - (H319)

Label Elements

Exclamation mark



Signal word
WARNING

Hazard statements
H315 - Causes skin irritation
H319 - Causes serious eye irritation

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
Specific treatment (see supplemental first aid instructions on this label)
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 soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before re-use

Other Hazards
Harmful to aquatic life with long lasting effects
Harmful to aquatic life

Section 3: Composition and information on ingredients, in accordance with Schedule 8

Substance

Not Applicable

Mixture

Chemical name	CAS No	weight-%
Ethylene Glycol	107-21-1	0 - 10%
2-Methyl-2,4-pentanediol	107-41-5	0 - 10%
Sodium chloride	7647-14-5	0 - 10%
Calcium Chloride	10043-52-4	0 - 10%
Zinc chloride	7646-85-7	0 - 10%
Cumene sulfonate, sodium salt	28348-53-0	0 - 10%
Non-hazardous ingredients	Proprietary	Balance

Section 4: First aid measures

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Emergency telephone number Poisons Information Center, Australia: 13 11 26
Poisons Information Center, New Zealand: 0800 764 766

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur.

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms Burning sensation.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to physicians Treat symptomatically.

Section 5: Firefighting measures**Suitable extinguishing media**

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

Unsuitable extinguishing media No information available.

Specific Hazards Arising from the Chemical

Specific hazards arising from the chemical No information available.

Hazardous Combustion Products Carbon oxides. Fluorinated oxides. Nitrogen oxides (NOx). Oxides of sulphur.

Special Protective Actions for Fire-Fighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required.

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

For emergency responders Use personal protection recommended in Section 8.

Environmental Precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

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

Methods for cleaning up Pick up and transfer to properly labelled containers.

Precautions to prevent secondary hazards

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

Section 7: Handling and storage, including how the chemical may be safely used

Precautions for Safe Handling

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 re-use.

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

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Strong acids. Strong bases. Strong oxidising agents.

Section 8: Exposure controls and personal protection

Control Parameters

Exposure Limits

Chemical name	Australia
Ethylene Glycol 107-21-1	10 mg/m ³ 20 ppm 52 mg/m ³ 40 ppm STEL 104 mg/m ³ STEL
2-Methyl-2,4-pentanediol 107-41-5	25 ppm Peak 121 mg/m ³ Peak
Zinc chloride 7646-85-7	1 mg/m ³ 2 mg/m ³ STEL

Appropriate Engineering Controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection If splashes are likely to occur, wear safety glasses with side-shields.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

Hand protection	Wear suitable gloves. Impervious gloves.
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.
Environmental exposure controls	No information available.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical State	Liquid
Appearance	No data available
Colour	No data available
Odour	No data available.
Odour Threshold	No data available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	No data available
Melting point/freezing point	No data available	No data available
Boiling point / boiling range	No data available	No data available
Flash Point		No data available
Evaporation Rate	No data available	No data available
Flammability (solid, gas)	No data available	No data available
Flammability limit in air		No data available
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapour Pressure	No data available	No data available
Vapour Density	No data available	No data available
Relative Density	No data available	No data available
Water Solubility	No data available	No data available
solubility(ies)	No data available	No data available
Partition coefficient	No data available	No data available
Autoignition Temperature	No data available	No data available
Decomposition Temperature	No data available	No data available
Kinematic viscosity	No data available	No data available
Dynamic viscosity	No data available	No data available

OTHER INFORMATION

softening point	No information available
Molecular Weight	No information available
VOC content (%)	No information available
Density	No information available
Bulk Density	No information available

Section 10: Stability and reactivity

Reactivity

Reactivity No information available.

Chemical Stability

Stability Stable under normal conditions.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Hazardous Polymerisation Hazardous polymerisation does not occur.

Conditions to Avoid

Conditions to avoid None known based on information supplied.

Incompatible Materials

Incompatible materials Strong acids. Strong bases. Strong oxidising agents.

Hazardous decomposition products

Hazardous decomposition products Carbon oxides. Nitrogen oxides (NOx). Oxides of sulphur. Fluorinated oxides.

Section 11: Toxicological information

Acute Toxicity

Information on Likely Routes of Exposure

Product Information

- Inhalation** Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
- Eye contact** Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes serious eye irritation.
- Skin contact** Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
- Ingestion** Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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

Numerical Measures of Toxicity - Product information

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

ATEmix (oral) 7,063.00 mg/kg

- Unknown acute toxicity** 36.799001 % of the mixture consists of ingredient(s) of unknown toxicity
- 0.005001 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
 - 24.739001 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
 - 36.799001 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
 - 36.799001 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)
 - 36.799001 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
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Ethylene Glycol	= 4700 mg/kg (Rat)	= 10600 mg/kg (Rat) = 9530 µL/kg (Rabbit)	-
2-Methyl-2,4-pentanediol	= 3700 mg/kg (Rat)	= 8560 µL/kg (Rabbit)	> 310 mg/m ³ (Rat) 1 h
Sodium chloride	= 3 g/kg (Rat)	> 10 g/kg (Rabbit)	> 42 g/m ³ (Rat) 1 h
Calcium Chloride	= 1000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-
Zinc chloride	= 1100 mg/kg (Rat)	-	-
Cumene sulfonate, sodium salt	> 7000 mg/kg (Rat)	-	-

See section 16 for terms and abbreviations

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

Skin corrosion/irritation	Classification based on data available for ingredients. Irritating to skin.
Serious eye damage/eye irritation	Classification based on data available for ingredients. Irritating to eyes.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Section 12: Ecological information

Ecotoxicity

Ecotoxicity

Unknown aquatic toxicity 0.47725 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to Micro-organisms	Crustacea
Ethylene Glycol	EC50 (96h) 6500 - 13000 mg/L Pseudokirchneriella subcapitata	LC50 (96h) static 40000 - 60000 mg/L Pimephales promelas LC50 (96h) static = 40761 mg/L Oncorhynchus mykiss LC50 (96h) = 41000 mg/L Oncorhynchus mykiss LC50 (96h) static = 27540 mg/L Lepomis macrochirus LC50 (96h) static 14 - 18 mL/L Oncorhynchus mykiss LC50 (96h) static = 16000 mg/L Poecilia reticulata	-	EC50 (48h) = 46300 mg/L Daphnia magna
2-Methyl-2,4-pentanediol	-	LC50 (96h) flow-through = 8690 mg/L Pimephales promelas LC50 (96h) flow-through 10500 - 11000 mg/L Pimephales promelas LC50 (96h) static = 10000 mg/L Lepomis macrochirus	-	EC50 (48h) 2700 - 3700 mg/L Daphnia magna

		LC50 (96h) static = 10700 mg/L Pimephales promelas		
Sodium chloride	-	LC50 (96h) semi-static = 7050 mg/L Pimephales promelas LC50 (96h) flow-through 4747 - 7824 mg/L Oncorhynchus mykiss LC50 (96h) static = 12946 mg/L Lepomis macrochirus LC50 (96h) static 6020 - 7070 mg/L Pimephales promelas LC50 (96h) flow-through 5560 - 6080 mg/L Lepomis macrochirus LC50 (96h) static 6420 - 6700 mg/L Pimephales promelas	-	EC50 (48h) Static 340.7 - 469.2 mg/L Daphnia magna EC50 (48h) = 1000 mg/L Daphnia magna
Calcium Chloride	-	LC50 (96h) static = 10650 mg/L Lepomis macrochirus	-	LC50 (48h) = 2400 mg/L Daphnia magna
Cumene sulfonate, sodium salt	EC50 (72h) > 1000 mg/L Desmodemus subspicatus	-	-	EC50 (24h) > 1000 mg/L Daphnia magna

Persistence and Degradability

Chemical Oxygen Demand (mg/L)

Concentrate 390,000
6% Solution 20,000

Concentrate Biological Oxygen Demand (mg/L)

Biological Oxygen Demand (5 Day) 89000
%BOD/COD 22.82
Biological Oxygen Demand (10 Day) 210000
%BOD/COD 53.85
Biological Oxygen Demand (15 Day) 230000
%BOD/COD 58.97
Biological Oxygen Demand (20 Day) 260000
%BOD/COD 66.67

6% Solution Biological Oxygen Demand (mg/L)

Biological Oxygen Demand (5 Day) 5200
%BOD/COD 26
Biological Oxygen Demand (10 Day) 12000
%BOD/COD 60
Biological Oxygen Demand (15 Day) 13000
%BOD/COD 65
Biological Oxygen Demand (20 Day) 14000
%BOD/COD 70

Bioaccumulative potential

Bioaccumulation No information available.

Component Information

Chemical name	Partition coefficient
Ethylene Glycol	-1.93
2-Methyl-2,4-pentanediol	<0.14

Mobility**Mobility in Soil** No information available.**Mobility** No information available.**Other Adverse Effects****Other Adverse Effects** No information available.**Section 13: Disposal considerations****Waste Treatment Methods****Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.**Contaminated packaging** Do not reuse empty containers.**Section 14: Transport information****ADG** NOT REGULATED**IATA** NOT REGULATED**IMDG** NOT REGULATED**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC CODE**

No information available

Section 15: Regulatory information**REGULATORY INFORMATION****National Regulations****Australia**

See section 8 for national exposure control parameters

Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)

No poisons schedule number allocated

International Inventories

TSCA	Complies
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	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
- AICS** - Australian Inventory of Chemical Substances

International regulations

Ozone-depleting substances (ODS) Not Applicable

Persistent Organic Pollutants Not Applicable

Export Notification requirements Not Applicable

Section 16: Any other relevant information

Revision date 17-Apr-2017

Revision note
SDS sections updated. 2. 11. 12.

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
c	carcinogen		

Disclaimer

The information provided in this Material 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

Data for Regulatory Rules

Composition 14.242

Chemical name	Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)	Poison Schedule Number
Ethylene Glycol - 107-21-1	SUSDP Schedule 5 except its salts and derivatives; except when included in Schedule 5; in paints or paint tinters; in toothpastes or mouthwashes containing >0.25% of Ethylene glycol; or in other preparations containing <=2.5% of Ethylene glycol	
Zinc chloride - 7646-85-7	except when included in Schedule 2; or in preparations containing <=5% of	



Zinc chloride

GHS Product Information

Pure substance/mixture	Mixture
Sold to the general public	No
Physical State	Liquid

Australia**Hazard statements**

H315 - Causes skin irritation

H319 - Causes serious eye irritation

Precautionary Statements - EU (§28, 1272/2008)

P321 - Specific treatment (see .? on this label)

Precautionary Statements

Wear protective gloves

Specific treatment (see supplemental first aid instructions on this label)

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before re-use

Take off contaminated clothing

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

Precautionary Statements

P280 - Wear protective gloves

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P321 - Specific treatment (see supplemental first aid instructions on this label)

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P362 - Take off contaminated clothing and wash before re-use

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/attention

Hazard statements

CAUSES SKIN IRRITATION

Causes serious eye irritation

0.47725 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Unknown Acute Aquatic Toxicity 0.47725**Unknown Chronic Aquatic Toxicity** 0.47725

36.799001 % of the mixture consists of ingredient(s) of unknown toxicity

0.005001 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

24.739001 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

36.799001 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

36.799001 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

36.799001 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)

GHS - Classification**Signal word**

WARNING

Health hazards



Skin corrosion/irritation
Signal word
Graphic

Category 2
WARNING



Hazard statements
Serious eye damage/eye irritation
Signal word
Graphic

CAUSES SKIN IRRITATION
Category 2
WARNING



Hazard statements

Causes serious eye irritation

Precautionary Statements
Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
Eyes

Specific treatment (see supplemental first aid instructions on this label)

Skin

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 soap and water If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before re-use

Symbols/Pictograms



Health hazards

Exclamation mark