11/1/14



Supplier: Pilot Pen Australia Pty Ltd Product: Frixion Light (SW-FL)

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SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF MATERIAL AND SUPPLIER

SUPPLIER:

Pilot Pen Australia Pty Ltd.

ABN:

37 144 701 502.

OFFICE ADDRESS: POSTAL ADDRESS: 39 Enterprise Circuit, Prestons, NSW 2170, Australia. Locked Bag 7010, Liverpool, NSW 1871, Australia.

TELEPHONE:

1300 325 866.

AH EMERGENCY TELEPHONE:

13 1126 (24 Hours) - Australian National Poisons Centre.

WEB PAGE:

www.pilotpen.com.au.

Pilot Frixion Light Erasable Highlighters

(All COLORS)

Product Name:

Frixion Light.

Product Range

Product range of:

SW-FL-P/O/Y/G/L/V.

Proper Shipping Name:

Not applicable.

Product Use:

Manufacturer's Product

Ink for writing instrument.

Codes:

Colours:

•L = Blue. •G = Green.

•O = Orange.

●P = Pink.

V = Violet.

•Y = Yellow.

Creation Date:

6 April 2016.

Revision Date:

Before 5 April 2021.

SECTION 2 - HAZARDS IDENTIFICATION

This product is classified as a HAZARDOUS CHEMICAL in accordance with the WHS and as NON-DANGEROUS GOODS according to the ADG Code.

CLASSIFICATION:

Hazard Classes & Categories:

Hazard Classes

Physical:

Not applicable.

Health:

Skin Corrosion/Irritation.

Serious Eye Damage/Irritation.

2. 2A.

Hazard Category

Sensitisation - Skin.

3.

Environmental: LABEL ELEMENTS:

Signal Word:

WARNING.

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Harmful to aquatic life.

Precautionary Statements:

Prevention:

Wear protective gloves/protective clothing/eye protection/face protection.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Hazardous to the aquatic environment — Acute Hazard

Wash skin thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

Avoid release to the environment.



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SECTION 2 - HAZARDS IDENTIFICATION (CONTINUED)

Response:

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: 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. Take off contaminated clothing and wash before reuse.

Storage:

Not applicable.

Disposal:

Dispose of contents and container to appropriate waste site or reclaimer in

accordance with local and national regulations.

General:

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Pictogram:



Pictogram Description:

Exclamation mark Not applicable.

Other Hazards which do not

result in Classification:

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS		
Ingredients:	CAS Number:	Proportion:
Glycerin	56-81-5	10 - < 30 % w/w
5-Chloro-2-methyl-3-isothiazolone [3(2H)-Isothiazolone, 5-chloro-2-methyl-] + 2-Methyl-3-isothiazolone [3-Isothiazolone, 2-methyl-] in 3:1 ratio	55965-84-9	< 1 % w/w
Other ingredients:	:	
Non-hazardous ingredients	Not available	To 100 %w/w
Total		100 % w/w

SECTION 4 – FIRST AID MEASURES

Scheduled Poisons:

Poisons Information Centre in each Australian State capital city can provide

additional assistance for scheduled poisons. (Phone Australia 13 1126) or a

doctor (at once).

First Aid Facilities Required:

Eye wash fountains and a general washing facility should be easily accessible in

the immediate work area.

Inhalation:

Remove victim from exposure- avoid becoming a casualty. Remove

contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have a qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply

external cardiac massage. Seek immediate medical advice.



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SECTION 4 - FIRST AID MEASURES (CONTINUED)

If skin or hair contact occurs, remove contaminated clothing and flush skin **Skin Contact:**

> and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance. Wash contaminated clothing before re-use. Do not take clothing home to be laundered. Discard contaminated shoes,

belts, and other articles made of leather.

Remove victim immediately from source of exposure. Make sure to remove **Eye Contact:**

> any contact lenses from the eyes before rinsing. If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least

15 minutes. Immediately seek medical attention.

Ingestion (Swallowed): Immediately rinse out mouth and drink 1 or 2 glasses of water. Immediately

> seek medical attention and bring these instructions. If swallowed DO NOT induce vomiting. Never give anything by mouth to an unconscious patient. If vomiting occurs naturally, have victim lean forward to reduce the risk of

aspiration into the lungs. Get to a doctor or hospital quickly.

PPE for First Aiders: Wear overalls, safety glasses or goggles and impervious gloves. No special

> precautions are envisaged to be required. NOTE: Product is a skin sensitiser. Barrier cream applied before work may make it easier to clean the skin after exposure, but does not prevent absorption through the skin. Always wash

hands before smoking, eating, drinking or using the toilet. Wash

contaminated clothing and other protective equipment before storing or re-

Advice to Doctor: Treat symptomatically. Poisons Information Centre in each Australian State

capital city can provide additional assistance for scheduled poisons.

SECTION 5 – FIRE FIGHTING MEASURES

Extinguish with water spray or normal foam. Use Carbon dioxide (CO₂) or dry **Suitable Extinguishing Media:**

agent for small fires.

Not applicable.

Unsuitable Extinguishing

Media:

Specific Hazards arising from

the chemical:

Precautions for Fire Fighters:

Special Protective Equipment &

In general fire, upon combustion, this product may emit Carbon monoxide

(CO), Carbon dioxide (CO₂) and other possibly toxic gases and vapours.

Wear self-contained breathing apparatus and full body protection. Cool containers / tanks with water spray. Minimise exposure. Do not breathe fumes. Contain run-off, prevent by any means available spillage from

entering drains and water course.

Hazchem Code:

IERG:

Not applicable.

Not applicable.

Flash Point: Flammability: Not applicable.

Not combustible. In general fire, upon combustion, this product may emit Carbon monoxide (CO), Carbon dioxide (CO₂), and other possibly toxic gases

and vapours.



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SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spills:

Personal Precautions, Protective Equipment & Emergency Procedures: In case of spill, isolate hazard area and deny entry. Wear protective clothing as described in Section 8 of this safety data sheet. Eye contact MUST be prevented by means of suitable personal protection equipment. See Section 8, Exposure Controls And Personal Protection for further information regarding personal protection. See Section 4, First Aid Measures, for further information.

Eye and face protection: The use of face shields, chemical goggles, or safety glasses with side shield protection (meeting the requirements of AS/NZS 1337) is recommended. If exposed to dust or fume, wear dust-tight goggles (meeting the requirements of AS/NZS 1337).

Skin protection:

Hand protection: Chemical resistant gloves (e.g. Butyl Rubber, PE/EVAL/PE or Polyethylene/Ethylene Vinyl Alcohol Copolymer gloves >1 mm thickness, complying with AS 2161) should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water. NOTE: Product is a skin sensitiser. Barrier cream applied before work may make it easier to clean the skin after exposure, but does not prevent absorption through the skin. Clothing: Suitable protective clothing complying with AS 4501, suitable chemical

resistant footwear complying with AS/NZS 2210 is recommended.

Respiratory protective equipment: No special ventilation or respiratory equipment is envisaged to be required provided exposure standards are not exceeded.

Do not allow to enter drainage system, surface or ground water. In the event of product entering waters or drainage system, or polluting soil or plants contact the Environmental Protection Authority or your local Waste Management Authority.

Environmental Precautions:

Methods & Materials for Containment & Cleaning

Small Spills:

No special precautions are envisaged to be required. Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal. The wasted material can be disposed of by incineration (preferably high temperature) by an approved agent according to State, Territory and/or Local government regulations.

Large Spills:

No special precautions are envisaged to be required. Clear area of all unprotected personnel. Prevent further leakage or spillage if safe to do so. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material, but not sawdust). Collect and seal in properly labelled containers or drums for disposal. If contamination of sewers or waterways has occurred advise local emergency services. The wasted material can be disposed of by incineration (preferably high temperature) by an approved agent according to State, Territory and/or Local government regulations.



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SECTION 7 - HANDLING AND STORAGE

Precautions for Safe Handling: For personal protection see section 8. Avoid spills. Avoid all personal contact,

> including skin and eye contact and inhalation of vapour, mist or aerosols and avoid contamination of clothing. Wear protective clothing when risk of exposure occurs. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers closed at all times. Avoid physical damage to containers. Always wash hands with soap and water after

handling. Work clothes should be laundered separately. Launder

contaminated clothing before re-use.

Information about Fire and

Explosion Protection:

Conditions for Safe Storage, including any Incompatibilities: Refer to State Regulations for storage and transport requirements.

Store in a cool (at temperatures below 25°C), dry, well-ventilated place and out of direct sunlight. Keep containers closed when not in use - check

regularly for leaks.

Further Information about

Storage Conditions:

Not applicable.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Control Measures: Ensure the use of individual protection measures Including Personal

Protective Equipment (PPE) and that the appropriate biological monitoring is

carried out.

xposure Standards:

National Occupational Exposure Limits, as published by Safework Australia:

Time-weighted Average (TWA): None established for product.

TWA for Glycerin as mist is 10 mg/m³.

Exposure Standards:

Short Term Exposure Limit (STEL): None established for product.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of

chemicals. They are not a measure of relative toxicity.

Biological Monitoring:

Safe Work Australia have not published any Biological Limits for ingredients

of this product.

Engineering Controls:

Not required in normal use.

Individual Protection Measures

Including Personal Protective

General protective & hygiene measures: Not required in normal use.

Equipment (PPE):

Eye and face protection: Not required in normal use.

Skin protection:

<u>Hand protection</u>: Not required in normal use.

Clothing: Not required in normal use.

Respiratory protective equipment: Not required in normal use.



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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical Description/

Properties:

Appearance:

Viscous liquid coloured as Blue, Green, Orange, Pink, Violet, Yellow.

Odour:

Slight characteristic odour.

Odour Threshold:

Not available.

:Hq

6.5 - 7.5.

Melting Point/ Freezing Point: Initial Boiling Point/ Boiling

Not available. Ca. 100°C.

Range:

Flashpoint:

Not applicable.

Evaporation Rate: Flammability (solid, gas): Not available. Not applicable.

Upper/Lower Flammability or

Not available.

Explosive Limits:

Vapour Pressure:

Not available. Not available.

Vapour Density:

Ca. 1.09-1.13 @ 20°C.

Relative Density: Solubility:

Soluble in water.

Partition coefficient: n-

octanol/water:

Not available.

Auto-ignition Temperature:

Decomposition Temperature:

Not available. Not applicable.

Viscosity:

15.0 - 20.0 mPa·s @ 20°C.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity:

No reactivity hazards are known for the material.

Chemical Stability:

Stable under recommended storage conditions.

Possibility of Hazardous

Reactions:

Conditions to Avoid:

Elevated temperatures.

No known hazardous reactions.

Incompatible Materials:

Not applicable.

Hazardous Decomposition

In general fire, upon combustion, this product may emit Carbon monoxide

Products:

(CO), Carbon dioxide (CO₂) and other possibly toxic gases and vapours.

SECTION 11 - TOXICOLOGICAL INFORMATION

Health Effects:

No data for product, following data is compiled on basis of ingredients.

Acute Toxicity Data (Oral):

No data for product. On basis of ingredients:

Acute Toxicity for Glycerin, (Oral) LD₅₀ (mouse) 4,090 mg/kg; TDL₀ (human)

1,428 mg/kg.

Acute Toxicity Data (Dermal):

No data for product. On basis of ingredients:

Acute Toxicity for Glycerin, (Dermal) LD₅₀ (rabbit) > 10,000 mg/kg.

Acute Toxicity Data

No data for product. On basis of ingredients:

(Inhalation):

Acute Toxicity for Glycerin, (Inhalation) LD_{50} (rat) > 570 mg/m³/1 hour.

Chronic Toxicity Data:

No data for product.



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SECTION 11 - TOXICOLOGICAL INFORMATION (CONTINUED)

Skin Corrosion/Irritation: Product is classified as Skin Corrosion/Irritation, Hazard Category 2; Causes

skin irritation. No data for product.

Serious Eye Damage/Irritation: Product is classified as Serious Eye Damage/Irritation, Hazard Category 2A;

Causes serious eye irritation. No data for product.

Respiratory or Skin Sensitisation: Product is classified as a Skin Sensitiser, Hazard Category 1; May cause an

allergic skin reaction due to the presence of 5-Chloro-2-methyl-3-isothiazolone [3(2H)-Isothiazolone, 5-chloro-2-methyl-] + 2-Methyl-3-

isothiazolone [3-Isothiazolone, 2-methyl-] in 3:1 ratio.

Germ Cell Mutagenicity:

Product is not classified as a Germ Cell Mutagen. No data for product.

Carcinogenicity:

Product is not classified as a Carcinogen. No data for product.

Reproductive Toxicity:
Specific Target Organ Toxicity

Product is not classified as Toxic to Reproduction. No data for product. Product is not classified as Specific Target Organ Toxicity (Single Exposure).

(STOT) - Single Exposure:

No data for product.

Specific Target Organ Toxicity

Product is not classified as Specific Target Organ Toxicity (Repeated

(STOT) – Repeated Exposure:

Exposure). No data for product.

Aspiration Hazard:

Product is not classified as Aspiration Hazard. No data for product.

Information on Possible Routes

Inhalation is the primary route of exposure although absorption may occur

of Exposure:

through skin contact or following accidental ingestion.

Ingestion (Swallowing):

Not to be ingested.

Eye Contact:

Product is classified as Serious Eye Damage/Irritation, Hazard Category 2A;

Causes serious eye irritation. No data for product.

Skin Contact:

Product is classified as Skin Corrosion/Irritation, Hazard Category 2; Causes skin irritation and is also classified as a Skin Sensitiser, Hazard Category 1;

May cause an allergic skin reaction.

Inhalation:

Product is not anticipated to be an inhalation hazard.

Other Health Effects: Repeated Dose Toxicity: No data for product. No data for product.

Developmental Toxicity:

No data for product.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:

This product is classified as Hazardous to the aquatic environment — Acute

Hazard, Hazard Category 3. No data for product.

Fish Toxicity:

No data for product. On basis of ingredients:

Acute Toxicity for Glycerin, LC₅₀ 54,000 mg/L (Rainbow trout, Oncorhynchus

mykiss, static test, 96 hours).

Invertebrates Toxicity:

No data for product. On basis of ingredients:

Acute Toxicity for Glycerin, LC₅₀ 1,955 mg/L (Water flea, Daphnia magna,

static test, 48 hours).

Algae Toxicity:

No data for product. On basis of ingredients:

Acute Toxicity for Glycerin, EC₃ > 10,000 mg/L (Green Algae, Scenedesmus

quadricauda, static test, 8 days).

Toxicity to Microorganisms:

No data for product.

Effects on other organisms: Persistence and Degradability:

No data for product. No data for product.



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SECTION 12 - ECOLOGICAL INFORMATION (CONTINUED)

Biological Oxygen Demand

No data for product.

(BOD):

Theoretical Oxygen Demand

Bio-accumulative potential:

No data for product.

(ThOD):

Chemical Oxygen Demand (COD):

No data for product.

BOD/COD Ratio:

No data for product. No data for product.

Mobility in Soil:

No data for product. Accidental spillage may lead to penetration in the soil

and groundwater. This may cause adverse ecological effects. Product is

soluble in water.

Ecotoxic Effects:

Other Adverse Effects:

No data for product.

General:

DO NOT DISCHARGE INTO DRAINS, WATERWAYS, SEWER OR

ENVIRONMENT. Product is hazardous for water. Product is soluble in water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Inform local authorities if this

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal methods:

Product: When all ink has been consumed in writing instrument the writing

> instrument may be disposed of as normal household waste. However, in bulk form, waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority, according to State, Territory and/or Local government regulations, pertinent authorities and adhering to the necessary technical regulations.

Do not allow runoff to sewer, waterway or ground. Incinerate with

adequate scrubbing and ash disposal.

Individual Protection Measures:

Refer to Individual Protection Measures Including Personal Protective

Equipment (PPE) in Section 8: EXPOSURE CONTROLS AND PERSONAL

PROTECTION.

Uncleaned Packaging:

Recommended to be disposed of according to official regulations.

Behaviour in Sewage Processing

No data for product.

Plants:

SECTION 14 – TRANSPORT INFORMATION

Road and Rail Transport:

Not applicable.

UN Number:

Not applicable.

UN Proper Shipping Name or

Not applicable.

Technical Name:

ADG Class:

Not applicable.

Packing Group:

Not applicable.

HAZCHEM Code:

Not applicable. Not applicable.

IERG: Segregation:

Not applicable.



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SECTION 16 – OTHER INFORMATION

Acronyms and Comments:

American Conference of Industrial Hygienists.

ADG Code:

Australian Code for the Transport of Dangerous Goods by Road and Rail.

AICS:

ACGIH:

Australian Inventory of Chemical Substances.

AS:

Standards issued by Standards Australia, GPO Box 476, Sydney NSW 2001, Australia. Standards issued by Standards Australia, GPO Box 476, Sydney NSW 2001, Australia

AS/NZ:

and Standards New Zealand, Private Bag 2439 Wellington 6140, New Zealand.

BEI:

Biological Exposure Indices published by the Conference of Governmental Industrial Hygienists (ACGIH), 1330 Kemper Meadow Drive, Cincinnati, OH 45240-4148, USA.

CAS Number:

Chemical Abstracts Service Registry Number.

GHS:

Globally Harmonized System of Classification and Labelling of Chemicals, a globally harmonized system for classification and labelling of chemicals proposed by the United

Nations.

HAZCHEM:

An emergency action code of numbers and letters which gives information to

emergency services.

IARC:

International Agency for Research on Cancer.

IERG:

Dangerous Goods Initial Emergency Response Guide (SAA/SNZ HB 76:2010 Standards

Australia/Standards New Zealand).

IMDG:

International Maritime Dangerous Goods Code for transport by sea.

LC/LD:

The median lethal dose, LD_{50} (abbreviation for "lethal dose, 50%"), LC_{50} (lethal concentration, 50%) is the dose required to kill half the members of a tested

population after a specified test duration. LD₅₀ figures are frequently used as a general

indicator of a substance's acute toxicity.

NICNAS:

National Industrial Chemicals Notification and Assessment Scheme.

NOEC:

No-Observed-Effect-Concentration. The highest concentration of toxicant to which organisms are exposed in a full life-cycle or partial life-cycle (short-term) test, that causes no observable adverse effects on the test organisms (i.e., the highest concentration of toxicant in which the values for the observed responses are not

statistically significantly different from the controls).

NOEL:

No-Observable-Effect-Level. It is the greatest concentration or amount of a substance,

found by experiment or observation, that causes no alterations of morphology, functional capacity, growth, development, or life span of target organisms

distinguishable from those observed in normal (control) organisms of the same species

and strain under the same defined conditions of exposure.

NTP:

National Toxicology Program (USA Department of Health and Human Services).

OSHA:

Occupational Safety and Health Administration (USA).

PPE:

Personal Protective Equipment.

Safe Work Australia:

Safe Work Australia was formerly the Australian Safety and Compensation Council, which included the National Occupational Health and Safety Commission (NOHSC).

SDS:

Safety Data Sheet.



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SECTION 16 - OTHER INFORMATION (CONTINUED)

STEL: Exposure standard - short term exposure limit, a 15 minute TWA exposure which

should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL. According to current knowledge this concentration should neither impair the

health of, nor cause undue discomfort to, nearly all workers.

SUSMP: Standard for the Uniform Scheduling of Medicines and Poisons.

TDL₀: Total Dose Low means the smallest deadly dose, which caused a toxic or other

harmful effect after application on humans or animal.

TWA: Exposure standard - time-weighted average, the average airborne concentration of

a particular substance when calculated over a normal eight hour working day, for a

five-day working week.

UN Number: United Nations Number.

WHS: Model work health and safety legislation introduced by the Australian government

which consists of an integrated package of a model Work Health and Safety (WHS) Act, supported by model Work Health and Safety (WHS) Regulations, model Codes

of Practice and a National Compliance and Enforcement Policy. The WHS

Regulations implement a new system of chemical hazard classification, labelling

and safety data sheet requirements based on the GHS.

Issue Date:

Supersedes Issue Date: Ne

Daylelan Information

Revision Information:

Contact Point:

Telephone:

Note:

6 April 2016. New issue.

Not applicable.

Customer Service.

1300 325 866.

Safety Data Sheets are updated frequently. Please ensure that you have a current

copy.

Disclaimer: This SDS summarises at the date of issue our best knowledge of the health and

safety hazard information of this product, and in particular how to safely handle and use this product in the workplace. Since Pilot Pen Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to

handle and use the product in the workplace. This SDS does not represent a guarantee for the properties of the product(s) described in terms of the legal warranty regulations. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.