SILVER FERN CHEMICAL INC

Safety data sheet

Issue Date 23-Aug-2016 **Revision Date** 22-Aug-2016 **Version** 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name

Trimethylolpropane flakes

Chemical Name	**CAS No**
Propylidynetrimethanol	77-99-6

Other means of identification

Pure substance/mixture Substance

Recommended use of the chemical and restrictions on use

Application Use: in adhesives, in sealants, in coatings, in inks, in lubricants, in greases in metal working fluids in polishes in wax-blends in laboratories for surface treatment of pigments and pigment concentrates, for polymers and plastics (PVC heat stabilizers). Manufacture: of elastomers, of non-metallic mineral products of polymers including resins of oligomers

Uses advised against Not identified.

Details of the supplier of the safety data sheet

COMPANY IDENTIFICATION

Silver Fern Chemical Inc.
2226 Queen Anne Ave. North
Suite B
Seattle, WA 98109
United States

Phone: 1-866-282-3384

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: Infotrac 1-800-535-5053
(USA & Canada) 24-Hour Emergency Contact: Infotrac 1-352-323-3500 (all other countries)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Not a dangerous substance or mixture according to the Globally Harmonised System (GHS) and Hazardous Products Regulations (HPR).

Label elements

Symbols/Pictograms
Not applicable.

Signal word
Not applicable

Hazard statements
Not applicable

Precautionary statements
Not applicable

Other hazards
No special hazards are associated with this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No	Weight-%
Propylidynetrimethanol	77-99-6	>98

4. FIRST AID MEASURES

Description of first aid measures

Inhalation First aid measures not required, but get fresh air for personal comfort.

Skin contact First aid measures not required, but wash exposed skin with soap and water for hygienic reasons.

Eye contact First aid measures not required, but rinse opened eye under running water for personal comfort to avoid mechanical irritation.

Ingestion Clean mouth with water. If a large quantity have been ingested or if you feel unwell, get medical advice/attention.

Most important symptoms and effects, both acute and delayed
None known.

Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
All types of extinguishing media are suitable. Use fire extinguishing methods suitable to surrounding conditions.

Unsuitable extinguishing media
Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical
Thermal decomposition can lead to release of irritating and toxic gases and vapours; Carbon monoxide (CO), Carbon dioxide (CO2).

Protective equipment and precautions for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Personal precautions
Ensure adequate ventilation. If dusty conditions wear respiratory protective device with dust filter, gloves and protective clothing for hygienic reasons.

Environmental precautions
Do not allow into any sewer, on the ground or into any body of water. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up
Methods for containment
Cover with plastic sheet to prevent spreading.
Methods for cleaning up
Take up mechanically, placing in appropriate containers for disposal. After cleaning, flush away traces with water.

Reference to other sections
See Section 7,8,13 for more information.

7. HANDLING AND STORAGE

Precautions for safe handling
Ensure good ventilation at the work station.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities
The product is: Hygroscopic. Keep container tightly closed. Keep in a dry place. Store at temperatures not exceeding 50 °C/ 122 °F. Keep cool.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls
Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection	No specific measures identified. Recommendation(s): Wear safety glasses with side shields (or goggles)
Hand Protection	Protective gloves not really required. However, we recommend using protective gloves made of rubber. Chloroprene rubber, CR, Nitrile rubber, NBR.
Skin and body protection	No recommendation is made specifying the need for personal protective equipment for the body.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are likely to be exceeded or if irritation or other symptoms are experienced, NIOSH/MSHA or EN 136 approved respiratory protection should be worn.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties
Appearance
Solid
Flakes
white

Odour Slight
Odour threshold Not applicable

Property	Value	Remarks • Method
pH		Not applicable
Melting point / freezing point	58 °C / 136 °F	OECD Test No. 102: Melting Point/ Melting Range
Boiling point / boiling range	302 °C / 576 °F	(101.3 kPa) OECD Test No. 103: Boiling Point
Flash point	174 °C / 345 °F	ASTM D 7094-04
Evaporation rate		No information available
Flammability (solid, gas)		Not flammable
Explosive limits		
Upper explosive limits		Not applicable
Lower explosive limits		Not applicable
Vapour pressure	0.01 Pa	@20°C; MPBPWIN
Vapour density		No information available
Relative density		No information available
Water solubility	>1000 g/L	@ 20 °C Soluble in water OECD Test No. 105: Water Solubility
Solubility(ies)		No information available

Partition coefficient	-0.80	log POW (@20°C; OECD 107) Partition Coefficient (n-octanol/water)
Autoignition temperature	414 °C / 777 °F	(DIN 51794)
Decomposition temperature		No information available
Kinematic viscosity		Not applicable
Dynamic viscosity		Not applicable
Explosive properties	Not explosive.	
Oxidising properties	Not oxidising.	
Density	1.12 g/cm³	@20°C; ISO 1183-1
Bulk density	530 kg/m³	@ 20°C, ASTM D1395

Other Information
No information available

10. STABILITY AND REACTIVITY

Reactivity
There exists no specific test data for this product. For further information, see the subsequent subsections of this chapter.

Chemical stability
Stable under normal conditions.

Possibility of Hazardous Reactions
None under normal processing

Conditions to avoid
None under normal use conditions.

Incompatible materials
None known.

Hazardous decomposition products
Thermal decomposition can lead to release of irritating and toxic gases and vapours; Carbon monoxide (CO), Carbon dioxide (CO2).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Dermal.

Symptoms related to the physical, chemical and toxicological characteristics
None known.

Numerical measures of toxicity

Acute toxicity
Product does not present an acute toxicity hazard based on known or supplied information.

Propylidynetrimethanol (77-99-6)				
Method	Species	Exposure route	Effective dose	Remarks
Not defined	Rat	Oral	>14700	LD50 (lethal dose) mg/kg
Not defined	Rabbit	Dermal	>10000	LD50 (lethal dose) mg/kg
Not defined	Rat	Inhalation	>850	LC50 4h mg/m³ Aerosol

Skin corrosion/irritation
Non-irritating to the skin.

Propylidynetrimethanol (77-99-6)			
Method	Species	Exposure route	Results:
Not defined	Rabbit	Dermal	Non-irritating to the skin

Serious eye damage/eye irritation
Non-irritant.

Propylidynetrimethanol (77-99-6)			
Method	Species	Exposure route	Results:
Not defined	Rabbit	Eye	The substance was non-irritant

Respiratory or skin sensitisation
Not a skin sensitiser.

Propylidynetrimethanol (77-99-6)			
Method	Species	Exposure route	Results:
OECD Test No. 429: Skin Sensitisation: Local Lymph Node Assay	Mouse	Skin	Not a skin sensitiser

Germ cell mutagenicity
Not mutagenic.

Propylidynetrimethanol (77-99-6)		
Method	Species	Results:
OECD Test No. 471: Bacterial Reverse Mutation Test	in vitro	Negative
OECD Test No. 473: In vitro Mammalian Chromosome Aberration Test	in vitro	Negative
OECD Test No. 476: In vitro Mammalian Cell Gene Mutation Test	in vitro	Negative

Carcinogenicity
No information available.

Reproductive toxicity
No impairment of fertility has been observed. No embryotoxic or teratogenic effects have been observed.

Propylidynetrimethanol (77-99-6)				
Method	Species	Exposure route	Effective dose	Remarks
OECD Test No. 422: Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test	Rat	Oral	800	P; NOAEL mg/kg bw/d No indication of reproductive toxicity according to OECD guideline 422 screening test.
OECD Test No. 422: Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test	Rat	Oral	800	F1; NOAEL mg/kg bw/d No embryotoxic or teratogenic effects have been observed.
OECD Test No. 414: Pre-natal Development Toxicity Study	Rat	Oral	100	NOEL (No observed effect level) mg/kg bw/d developmental toxicity
OECD Test No. 414: Pre-natal Development Toxicity Study	Rabbit	Oral	>450	NOAEL mg/kg bw/d No embryotoxic or teratogenic effects have been observed.

STOT - single exposure None under normal use conditions

STOT - repeated exposure

Propylidynetrimethanol (77-99-6)				
Method	Species	Exposure route	Effective dose	Remarks
OECD Test No. 422: Combined Repeated Dose	Rat	Oral	200	NOAEL mg/kg bw/d

Toxicity Study with the Reproduction/Developmental Toxicity Screening Test				
Unknown 15d	Rat	Inhalation	3.5	NOAEC ppm No toxicity

Aspiration hazard
No hazard identified.

12. ECOLOGICAL INFORMATION

Toxicity
Low toxicity to aquatic organisms.

Propylidynetrimethanol (77-99-6)					
Method	Species	Exposure route	Effective dose	Exposure time	Remarks
Other	Fish	Marine water	>1000	96h	LC50 (lethal concentration) mg/l
Other	Daphnia magna	Freshwater	13000	48h	EC50 (effective concentration) mg/l
Other	Pseudokirchneriella subcapitata	Freshwater	>1000	72h	EC50 (effective concentration) mg/l
Other	Daphnia magna	Freshwater	>1000	21d	NOEC mg/l
Regulation (EC) No. 440/2008, Annex, C.11	Bacteria toxicity	Freshwater	>1000	3h	EC50 (effective concentration) mg/l

Persistence and degradability
Inherently biodegradable.

Propylidynetrimethanol (77-99-6)			
Method	Value	Exposure time	Results:
OECD Test No. 301E: Ready Biodegradability: Modified OECD Screening Test (TG 301 E)	6%	28d	Not readily biodegradable
OECD Test No. 302B: Inherent Biodegradability: Zahn-Wellens/ EVPA Test	100%	28d	Inherently biodegradable.

Bioaccumulative potential
No bioaccumulation potential.

Chemical Name	**Partition coefficient**	**Bioconcentration factor (BCF)**
Propylidynetrimethanol	-0.80	<17

Mobility in soil
The product does not adsorb to suspended solids and sediment based upon the log Koc which indicates a high mobility in soil.

Chemical Name	**Log Koc**
Propylidynetrimethanol	0.176

Other adverse effects
No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging
Thoroughly emptied and clean packaging may be recycled.

14. TRANSPORT INFORMATION

TDG Road transport Not regulated

RID Rail transport Not regulated

IMDG Sea transport Not regulated

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

IATA Air transport Not regulated

15. REGULATORY INFORMATION

International Regulations

Not applicable.

National regulations

Canada

Not applicable.

16. OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

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Revision Note No information available

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End of Safety Data Sheet