

SAFETY DATA SHEET - SDS

Product : ISTEMUL PGMS K INT

Review : 04

February 06th, 2017

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

Product	ISTEMUL PGMS K INT
Internal identification code	--
Relevant recommended uses	Industrial uses.
Company	Oxiteno México, S.A de C.V
Address	Insurgentes Sur 1602 Int. 101 Col.CréditoConstructor,Del.BenitoJuárez C.P.03940,México D.F
Phone number	(55) 5322-0560
Emergency Phone number	Coatzacoalcos: 52 (921) 2110903 Guadalajara: 52 (33) 3697 0202 San Juan del Rio: 52 (427) 101 1034 SETIQ: 01800 00 214 00 / 52 (55) 5559 1588 (D.F.) For Chemical Emergency - Spill, Leak, Fire, Exposure or Accident: Call CHEMTREC Day or Night 800-424-9300 (Domestic North America) International, Call +1 703-527-3887 (collect calls accepted)

2. HAZARDS IDENTIFICATION

Classification Not available.

Label Elements

- Hazard Pictograms Not available.
- Signal Word Not available.
- Hazard Statements Not available.
- Precautionary Statements Not available.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Brand or Generic Chemical Name	Propylene glycol monostearate
Product Type	Substance.
Synonyms	1,2-Propanediol monostearate; Propylene glycol esters of fatty acid. Propane-1,2-diol fatty acid esteres.
CAS Number	977050-70-6.
EINECS/NLP number	Not available.
Impurities which contribute to the classification of the substance	There are no impurities which contribute to the classification of the substance.

4. FIRST-AID MEASURES

Procedure in Case of:

- Ingestion Seek prompt medical attention.
Do not induce vomiting.
Vomiting should only be induced by medical personnel.
If vomiting occurs, keep the head lower than chest to avoid aspiration into the lungs.
Never give anything by mouth to an unconscious or convulsing person.
- Inhalation Seek prompt medical attention.
Remove victim to fresh air.
If breathing is difficult, give oxygen.
If not breathing, give artificial respiration.
- Skin contact Remove contaminated clothing and shoes. Wash affected areas with plenty of running water, preferably under a shower.
Seek prompt medical attention.
- Eye contact Immediately flush with plenty of running water for at least 15 minutes, keeping eyelids open.
Remove contact lenses if easy to do.
Seek prompt medical attention.

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Most important symptoms/effects, acute and delayed

Ingestion- In large amounts may cause: Drowsiness. Dizziness. Nausea. Vomiting. Depression of the central nervous system. Liver damage.
Inhalation- May cause: Respiratory tract irritation.
Skin- Prolonged or repeated contact may cause irritation.
Eyes- It may cause irritation.

Information for doctor

There is not known any specific antidote.
Direct the treatment in accordance with the symptoms and clinical conditions of the patient.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

In case of fire, use:
Water spray.
Carbon dioxide (CO₂).
Dry chemical powder.
Foam.

Specific Hazards

Product is not flammable.
Dust/air mixtures may ignite or explode.
In case of combustion it may generate carbon monoxide, besides CO₂.

Protective measures for fire-fighters

Water jets should not be used directly on igniting products because it may disperse the material and intensify the fire.
Self-contained breathing apparatus and protective clothing are required.
Cool the intact fire-exposed containers with water spray and remove them.

NFPA Rating

- Health 0
- Flammability 1
- Instability 0
- Special

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Isolate and signalize area.
Keep heat and/or ignition sources away.
Use personal protection equipment as indicated in Section 8, in order to avoid contact with spilled product.

Environmental Precautions

Prevent product from entering into soil and waterways.
Notify the competent authorities if the product has run into drainage systems or watercourse or has contaminated the ground or vegetation.

Methods and materials for containment and cleaning up

Stop if possible.
Contain and dike spilled product with earth or sand.
Eliminate ignition or heat sources.
Transfer to proper container.
Collect remnants with an appropriate absorbent material.
Wash the contaminated surface with water, which should be collected for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Use in a well-ventilated area.
Avoid inhalation and contact with eyes, skin or clothing through proper protection.
If occurs accidental contact, exposed area should be washed immediately.
Emergency eyewashes and showers shall be located in accessible locations.
Wash hands and face thoroughly after handling.
Wash contaminated clothing before reuse.

Conditions for safe storage

Store in a covered and well-ventilated area, away from sunlight and sources of heat or open flames.
Ensure that the storage location has adequate moisture, pressure and temperature.
Keep containers tightly closed when not in use.

Incompatibilities

Avoid contact with:
Strong oxidizing agents.

Packaging Material

Not available.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

- TLV-TWA (ACGIH) Not established.

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- **PEL-TWA (OSHA)** Sodium hidroxide: 2 mg/m³.
- **TLV-STEL (ACGIH)** Sodium hidroxide: 2mg/m³
Ceiling (C) - The concentration that shall not be exceeded during any part of the working exposure.
- **LT(NR15)** Not established.
- **Odor Threshold** Not available.
- **IDLH** Not established.
- **Biological Exposure Indices (ACGIH)** Not available.

Engineering Control Measures In closed environments, this product should be handled keeping proper exhaust (general diluter or local exhauster).

Individual Protection Measures

- **Eye Protection** Side shields or wide vision safety goggles.
- **Skin Protection** PVC apron.
It is recommended to adopt safety boots/shoes.
- **Hand Protection** Gloves made of:
Chemical resistant material.
- **Breathing equipment** In case of emergency or contact with high concentrations of the product, wear an air supplied mask or self contained breathing apparatus.
It is recommended to wear a face mask with mechanical filter in case of exposure to the particulate material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Cream. Flakes.
Odour and Odour threshold	Not available.
pH	Not applicable. Product insoluble in water.
Melting point/Freezing point	~ 36 °C.
Initial Boiling Point and Boiling Range	> 100 °C (760mmHg).
Flash point	> 149 °C (CC).
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Vapour density (air = 1)	Not available.
Relative density (water=1)	Not applicable. It is a solid product.
Apparent density	0.4737 g/cm ³ .
Solubility	Insoluble in water.
Partition Coefficient n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. STABILITY AND REACTIVITY

Chemical stability Stable under normal conditions of use and storage.

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Reactivity	No hazardous reactivity is expected.
Possibility of Hazardous Reactions	Not polymerize.
Conditions to avoid	High temperatures, ignition sources and prolonged exposure to the air.
Incompatible materials	Avoid contact with: Strong oxidizing agents.
Hazardous decomposition products	In case of combustion it may generate carbon monoxide, besides CO ₂ .
Considerations on the use of the product	Not applicable.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

- **Oral**
LD50, mouse: 26000 mg/kg.
LD50, rat: 25800 mg/kg.
- **Inhalation**
Stearic acid - LC50, 4h, rat: > 0.1621 mg/L.
Palmitic acid - CL50, 4h, rat: > 0.1621 mg/L.
Propylene glycol - LC50, 2h, rabbit: > 317042 mg/m³.
- **Dermal**
Not available.

Skin corrosion/irritation

Propylene glycol monostearate - A 5% solution tested for 20 days was tolerated by rabbits.
Stearic acid - LD50, rabbit: > 2000 mg/kg.
Palmitic acid - LD50, rabbit: > 2000 mg/kg.
Propylene glycol - LD50, rabbit: > 2000 mg/kg.

Serious eye damage/eye irritation

Not available.

Respiratory or skin sensitization

Not available.

Germ cell mutagenicity

Not available.

Carcinogenicity

(Salmonella typhimurium and Saccharomyces cerevisiae).

Reproductive toxicity

Not available.

Specific target organ toxicity - Single exposure

Not available.

Specific target organ toxicity - Repeated exposure

Not available.

Aspiration hazard

Not available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Stearic acid - Fish - LC50, 48h, Leuciscus idus: > 10000 mg/L.
Invertebrate - EC50, 47h, Daphnia magna: > 32 mg/L.
Algae, EC50, 72h, Pseudokirchnerella subcapitata: > 0.9 mg/L.

Palmitic acid - Fish - CL50, 96h, Danio rerio: > 1000 mg/L.
Invertebrate - CE50, 48h, Daphnia magna: > 4.8 mg/L.
Algae - CE50, 72h, Pseudokirchnerella subcapitata: > 0.9 mg/L.

Propylene glycol - Fish - CL50, 96h, Oncorhynchus mykiss: 40613 mg/L.
Invertebrate - CL50, 48h, Ceriodaphnia dubia: 18340 mg/L.
Algae - CE50, 72h, Skeletonema costatum: 19000 mg/L.

Persistence and Degradability

Readily biodegradable.
The product is not persistent.

Bioaccumulative Potential

No bioaccumulation.

Mobility in soil

Not available.

Other Adverse Effects

Not available.

13. DISPOSAL CONSIDERATIONS

Recommended methods of disposal

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- **Product** The preferred options for disposal include reuse, recycling, co-processing, finding a use for a by-product, incineration or other thermal destruction process at licensed facilities. All procedures must follow specific operation standards in order to reduce health, safety and environmental risks. Perform co-processing, incineration or other thermal destruction process at facilities capable of minimizing or reducing air pollution emissions. The disposal must comply with federal, state, and local laws and regulations in accordance with the environmental agencies.
- **Product Remains** Same method as indicated for product.
- **Packaging** Do not cut or pierce the packaging, nor do hot work near them. Do not remove labels until the product has been fully removed and the packaging cleaned. The preferred options for disposal include reuse, recycling or reclamation at licensed facilities. All procedures must follow specific operation standards in order to reduce health, safety and environmental risks. The disposal must comply with local legislation and in accordance with standards from local environmental agencies.

14. TRANSPORT INFORMATION

Land Transport ANTT Product not classified as hazardous in accordance with Resolution 420/2004 - Transport Ministry.

- **UN number** N/A
- **Proper Shipping Name** Not classified.
- **Hazard Class** Not classified.
- **Hazard Number** Not classified.
- **Packaging Group** Not classified.

Maritime Transport IMDG Product not classified as hazardous in accordance with IMDG Code - 2010 Edition - IMO (International Maritime Organization).

- **UN number** N/A
- **Proper Shipping Name** Not classified.
- **IMDG Class** Not classified.
- **Packaging Group** Not classified.
- **EmS** Not classified.

Air Transport ICAO-TI and IATA-DGR Product not classified as hazardous in accordance with Dangerous Goods Regulations - 53rd Edition - IATA (International Air Transport Association).

- **UN number** N/A
- **Proper Shipping Name** Not classified.
- **ICAO/IATA Class** Not classified.
- **Label** Not classified.
- **Packaging Group** Not classified.

15. REGULATORY INFORMATION

Applicable standards Resolution 420 / 2004 – Transport Ministry.
 IMDG Code - 2010 Edition - IMO (International Maritime Organization).
 Dangerous Goods Regulations - 53rd Edition - IATA (International Air Transport Association).
 Dangerous Goods by Road (ADR) – Available from January 1st, 2011 – Unece (United Nations Economic Commission for Europe).
 Brazilian Technical Standards Association (ABNT) – NBR 14725 - Part 1 to 4.

16. OTHER INFORMATION

Remarks Not applicable.

Sources Toxnet - Toxicology Data Network.
 ECOTOX - ECOTOXicology database, MED, US EPA.
 LOLI - ChemADVISOR's Regulatory Database.
 2012 TLVs and BEIs – Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices – ACGIH.
 2012 Guide to Occupational Exposure Values – ACGIH.
 eChemPortal - The Global Portal to Information on Chemical Substances.

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Abbreviations and acronyms

ACGIH: American Conference of Governmental Industrial Hygienists (USA).
ADR: European agreement concerning the international carriage of dangerous goods by road.
CAS: Chemical Abstracts Service (American Chemical Society - EUA).
EC50: Average concentration for 50% of maximum response.
LC: Lethal Concentration - substance concentration in the environment that leads to death after a certain period of exposure.
LC50: Lethal concentration for 50% of the test animals.
BOD: Biochemical Oxygen Demand.
LD50: Lethal Dose for 50% of the test animals.
LDLo: Lethal Dose Low - minimal amount of a chemical lethal to animals in testing.
EINECS: European Inventory of Existing Commercial Chemical Substances.
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
IARC: International Agency for Research on Cancer.
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods by Regulations by the IATA
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the ICAO.
IMDG: International Maritime Code for Dangerous Goods.
IDLH - Immediately Dangerous To Life or Health Concentrations.
Kow: Octanol/water partition coefficient.
LT (NR 15): Exposure limits of the standard number 15 - Unhealthy Operations and Activities from the Ministry of Labour and Employment of Brazil.
LOAEL: Lowest Adverse Effect Level
LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database
NLP: No Longer Polymers.
NIOSH: National Institute for Occupational Safety and Health.
NOAEL: No Observed Adverse Effect Level
NTP: National Toxicology Program.
OSHA: Occupational Safety and Health Administration (EUA).
PEL-TWA: Exposure Limit Allowed – time-weighted average.
RID: Regulations concerning the international transport of dangerous goods by rail.
TLV-STEL: Tolerance Limit - short period of time (15 minutes, maximum).
TLV-TWA: Tolerance Limit – time weighted average.
WGK: Wassergefährdungsklasse (Germany) - Water Hazard Class.

This Safety Data Sheet was authored according to our current knowledge and experience, however cannot imply guarantee of any nature. Considering the variety of factors that can affect their process or application, the information on this sheet does not exempt the processors from the responsibility of executing their own tests and experiments.

ELECTRONICALLY APPROVED