

1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

Products governed by this SDS: PTPG-#-##-PGA, PTPG-#A-##-PGA, PTPB-#A-##-PGA, PTPR-A-##-PGA, PTPC-A-##-PGA, PT20-A-##-PGA, PT23-A-##-PGA, PT24-A-##-PGA, PT25-A-##-PGA, LTPC-A-##-PGA, PT26-A-##-PGA, LTPR-A-##-PGA, LT27-A-##-PGA, LT31-B-##-PGA, LTPF-#-##-PGA, LT34-B-##-PGA, LT37-B-##-PGA. Where “##” are any numeric combination.

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2. HAZARD IDENTIFICATION

GHS Classification

Reproductive Toxicity (Category 1)
 Serious eye damage/eye irritation (Category 2/2A)
 Flammable liquids (Category 3)

GHS Label elements

Precautionary pictograms:



Signal word: DANGER

Hazard statements:

H226 Flammable liquid and vapour
 H319 Causes serious eye irritation
 H360 May damage fertility or the unborn child

Precautionary statements:

Prevention:

P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P233 Keep container tightly closed.
 P240 Ground and bond container and receiving equipment.
 P241 Use explosion-proof electrical/ventilating/lighting equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P264 Wash...thoroughly after handling
 P280 Wear protective gloves/protective clothing/eye protection/face protection

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308 + P313 IF exposed or concerned: Get medical advice/attention.
 P337 + P313 If eye irritation persists: Get medical advice/attention.

P370 + P378 In case of fire: Use water spray, foam, carbon dioxide, dry chemical to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep container tightly closed.

P403+ P233 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with all national and local regulations.

3. COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Name	CAS#	%
2-(1-Methoxy)propyl acetate (Propylene glycol monomethyl ether acetate, PGMEA)	108-65-6	10-90
Titanium dioxide (in nanocrystal form)	13463-67-7	10-80
Capping agent	Trade Secret	2-20

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard found at 29 CFR 1910.1200. Exact concentrations are being withheld due to trade secrets and due to variability of concentrations covering the range of products indicated above.

4. FIRST AID MEASURES

Consult a physician. Show this SDS to the doctor.

Eye

Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15 minutes, while holding the eyelid(s) open. Obtain medical advice.

Skin

Remove contaminated clothing, shoes, and leather goods. Quickly and gently, blot or brush away excess chemical. Wash gently and thoroughly with lukewarm gently flowing water and non-abrasive soap for 15 minutes. If irritation persists, repeat flushing. Obtain medical advice. Completely decontaminate clothing, shoes and leather goods before reuse or discard.

Inhalation

Move person to fresh air. Give artificial respiration if needed. If breathing is difficult, qualified personnel should administer oxygen. Get immediate medical attention.

Ingestion

Do not induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Use water fog or spray, universal foam, carbon dioxide or dry chemical. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Special Fire Fighting Procedures

Wear an approved, positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water.

Unusual Fire Hazards

Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. As with any ether, 2-(1-Methoxy)propyl acetate (PGMEA) may form highly reactive peroxides upon contact with air.

Hazardous Decomposition Products

Oxides of carbon

6. ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Vapor explosion hazard. Wear appropriate protective clothing to prevent eye and skin contact. Ventilate area. Keep out of sewers. Isolate area and keep unnecessary and unprotected personnel from entering the area. Cover with an inert absorbent material and collect into an appropriate container for disposal. Report spills and releases as required to appropriate authorities.

7. HANDLING AND STORAGE
Handling

Avoid breathing vapors, aerosols and mists. Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Keep product away from heat, sparks, flames and all other sources of ignition.

Vapors are heavier than air and may travel long distances and accumulate in low lying areas. Ignition and/or flashback can occur.

Electrically ground and bond all equipment. Use of non-sparking or explosion-proof equipment may be necessary. Empty containers can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

This product is a poor conductor of electricity and can become electrostatically charge, even in bonded or grounded equipment. Operations that can promote accumulation of static charges include but are not limited to mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, container cleaning, sampling, gauging, etc.

If dried, use approved PPE including respiratory protection and ventilation in the presence of solid

Storage

Store in a cool, dry, well-ventilated location away from incompatible materials. Keep containers closed when not in use. Minimize sources of ignition. Do not store in aluminum, copper, galvanized iron or steel.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	Exposure Limits
2-(1-Methoxy)propyl acetate (PGMEA)	50 ppm TWA (WEEL)
Titanium compounds	15 mg/m ³ TWA (OSHA)
Capping agent (Trade Secret)	None Established

Respiratory Protection

If needed, an approved respirator with organic vapor/P100/N100 cartridges may be used. For higher exposures, a supplied air respirator may be required. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice. Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Skin Protection

Impervious gloves are recommended. Preferred materials include butyl rubber, polyethylene, chlorinated polyethylene or ethylvinyl alcohol laminate. Consult with glove supplier.

Eye Protection

Chemical safety goggles recommended.

Other Protective Equipment

Impervious clothing is required to prevent skin contact and contamination of personal clothing. If dried, use approved PPE including respiratory protection and ventilation in the presence of solid

9. PHYSICAL AND CHEMICAL PROPERTIES

Properties shown are for 2-(1-Methoxy)propyl acetate.

Appearance and Odor: Liquid with a sweet odor.

pH:	Not available	Specific Gravity:	0.97 g/cm ³
Boiling Point:	145-146 °C	Melting Point:	-65.99 °C
Vapor Pressure:	3.59 mmHg @ 20 °C	Water Solubility:	198 g/l at 20 °C
Vapor Density:	Not available	Evaporation Rate:	Not available
Flash Point:	46 °C (115 °F)	Flammable Limits: LEL:	1.3 vol%
Flammable Limits: UEL:	13.1 vol%		

10. STABILITY AND REACTIVITY

Incompatible materials

Strong oxidizing agents, strong acids, strong alkalis, reducing agents.

Conditions to avoid

Keep away from heat, sparks, flames and other sources of ignition.

Hazardous Decomposition Products

Combustion will produce oxides of carbon and unknown materials.

11. TOXICOLOGICAL INFORMATION

Health Hazards:

Eye: Causes eye irritation.

Skin: No data available.

Inhalation: No data available.

Ingestion: no data available.

Aspiration: no data available.

Repeated/Chronic Exposure: no data available.

Specific target organ toxicity: no data available

Carcinogenicity:

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

No toxicological data available for product

PGMEA Toxicity Data

Oral LD50 – rat: 8,532 mg/kg

Dermal LD50 – rabbit: >2,000 mg/kg

12. ECOLOGICAL INFORMATION

PGMEA Data

Toxicity to fish LC50 – slamo Gairdner: 100-180 mg/L 96 hr
Daphnia > 500 mg/L 48 hr

13. DISPOSAL INFORMATION

Dispose of by incineration.

Any leftover product is to be disposed of by incineration. Disposal in accordance with all local, state and federal regulations (40CFR260-268). Contaminated packaging is to be triple rinsed with appropriate organic solvent/monomer prior to being disposed of. The contaminated rinse solvent/monomer is to be treated as hazardous waste and must be disposed of by incineration. No other disposal method is acceptable.

14. TRANSPORT INFORMATION

DOT Shipping Name:	Esters, n.o.s (2-methoxy-1-methylethyl acetate Mixture)
DOT Hazard Class:	3, PG III
UN Number:	UN3272
Hazardous Substance:	none
Reportable Quantity:	none

IATA Shipping Name:	Esters, n.o.s (2-methoxy-1-methylethyl acetate Mixture)
IATA Hazard Class:	3, PG III
UN Number:	UN3272

15. REGULATORY INFORMATION

The status under the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) has not been determined. This product should only be used for Research and Development as allowed in 40 CFR 720.36.

16. OTHER INFORMATION

SDS Date of Preparation: 03/02/2018

Glossary:

IARC = International Agency for Research of Cancer

NTP = National Toxicology Program

OSHA = Occupational Safety and Health Act

TSCA = Toxic substances Control Act

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