SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Sta-Sol® TPM
CAS Number:		25498-49-1
Chemical characterization	:	Propylene Glycol Ethers
Chemical Name	:	(2-(2-Methoxy methyl ethoxy)Methylethoxy) Propanol
Synonyms	:	Propanol,(2(2-Methoxymethylethoxy)Methylethoxy), Tripropylene Glycol Methyl Ether
Identified uses	:	Solvent
Company	:	J R Hess Company, Inc. 400 Station Street Cranston, RI 02910
Telephone / EmAIL		877-785-2271 / custserv@jrhess.com
Emergency telephone		For Chemical Emergency ONLY (spill, leak, fire, exposure or accident), 24 hour emergency telephone, call CHEMTREC at 1-800-424-9300 (US, Canada, Puerto Rico); 1-703-527-3887 (elsewhere).

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Specific target organ systemic toxicity - single exposure Category 3

GHS Classification Scale (1= severe hazard; 4= slight hazard)

Label elements

Hazard symbols :

Signal Word : Warning

Hazard Statements : H336 May cause drowsiness or dizziness.

Precautionary Statements :

Prevention

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P271 Use only outdoors or in a well-ventilated area.

Response

P312 Call a POISON CENTER or doctor/ physician if you feel unwell.

Storage
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Other hazards

Hazards Not Otherwise Classified (HNOC)
May cause dermatitis by defatting the skin from prolonged or repeated contact.

3. Composition/information on ingredients

Substances

Ingredients

Chemical Name	CAS-No. EC-No.	Weight %	Component Type
Tripropylene Glycol Monomethyl Ether	25498-49-1	> 99.0 %	A

Key:
(A) Substance

SECTION 4. FIRST AID MEASURES

First aid procedures

General advice : Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid.
Consult a physician/doctor if necessary.
Show this material safety data sheet to the doctor in attendance.

If inhaled : If overcome by exposure, remove victim to fresh air immediately.
Give oxygen or artificial respiration as needed.
Obtain emergency medical attention.
Prompt action is essential.

In case of skin contact : Remove contaminated clothing as needed.
Wash skin thoroughly with mild soap and water.
Flush with lukewarm water for 15 minutes.
If sticky, use waterless cleaner first.
Seek medical attention if ill effect or irritation develops.

In case of eye contact : Thoroughly flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation persists, seek medical attention.

If swallowed	:	This material may be a slight health hazard if ingested in large quantities. If large quantity swallowed, give lukewarm water (pint/ 1/2 litre) if victim completely conscious/alert. Do not induce vomiting. Risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.

Notes to physician

Symptoms	:	Inhalation may cause CNS depression.
Hazards	:	May cause drowsiness or dizziness.
Treatment	:	Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point	:	255 °F (124 °C) at 1,013 hPa (760 mm Hg) Method: PMCC
Autoignition temperature	:	531 °F (277 °C) at 1,013 hPa (760 mm Hg)
Lower explosion limit	:	No Data Available.
Upper explosion limit	:	No Data Available.

Fire fighting

Suitable extinguishing media	:	SMALL FIRE: Use dry chemical, CO2, water spray or regular foam LARGE FIRE: Use water spray, water fog or foam. DO NOT use straight streams

Protective equipment and precautions for firefighters

Specific hazards during fire fighting	:	Heat from fire can generate flammable vapor. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air. May travel long distances along the ground before igniting and flashing back to vapor source. Fine sprays/mists may be combustible at temperatures below normal flash point. Heat may build enough pressure to rupture closed containers/spreading fire/increasing risk of burns/injuries.

Cool containers with flooding quantities of water until well after fire is out.
Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
Always stay away from tanks engulfed in fire.
For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters : Wear positive pressure self-contained breathing apparatus (SCBA).
Structural firefighter's protective clothing will only provide limited protection.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Clean-up to be performed only by trained and properly equipped personnel.

Environmental precautions : An authoritative evaluation of environmental exposure and risk indicates that no special risk management practices are needed to control environmental release.

Methods for containment / Methods for cleaning up : Eliminate all sources of ignition.
All equipment used when handling this product must be grounded.
Do not touch or walk through spilled material.
Stop leak if you can do it without risk.
Prevent entry into waterways, sewers, basements or confined areas.
A vapor suppressing foam may be used to reduce vapors.
Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Use clean non-sparking tools to collect absorbed material.

SECTION 7. HANDLING AND STORAGE

Handling

Advice on safe handling : Keep container tightly closed when not in use.
The potential for peroxide formation is enhanced when this solvent is used in processes such as distillation.
Use only non-sparking tools.
Properly ground containers before beginning transfer.
Handle empty containers with care.
Flammable/combustible residue remains after emptying.
The purging of all empty shipping containers, regardless of the flashpoint, is recommended when received with air atmospheres.
Isolate, vent, drain, wash and purge systems or equipment before maintenance or repair.

Use adequate personal protective equipment.
Observe precautions pertaining to confined space entry.

Storage

Requirements for storage areas and containers	:	Store only in tightly closed, properly vented containers away from heat, sparks, open flame and strong oxidizing agents. Store in properly lined steel/stainless steel to avoid slight discoloration from mild steel/copper. Storage under nitrogen atmosphere is recommended to minimize possible formation of highly reactive peroxides. Aluminum (5000 series alloys - U.S. Aluminum Association Standard) showed no corrosion after 30 days contact with PM Acetate, DPM, TPM, PTB, or PM at 71°C (160°F). Some plastics/rubbers are attacked by Glycol Ethers/Ether Esters. This product will absorb water if exposed to air.

8. Exposure controls/personal protection

Control parameters

Ingredients with workplace control parameters

Consult local authorities for acceptable exposure limits.

Exposure controls

Engineering measures

Local exhaust in addition to general room ventilation may be required to meet exposure limit(s).

Personal protective equipment

Respiratory protection	:	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. If exposure can exceed the occupational exposure limit(s), use approved respiratory protection equipment.
Hand protection	:	Wear chemical resistant gloves such as: Neoprene.
Eye and face protection	:	Eye protection such as chemical splash goggles and/or face shield must be worn when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapor.
Skin and body protection	:	Depending on the conditions of use, protective gloves, apron, boots, head and face protection should be worn. Use PPE that is chemical resistant to the product and prevents skin contact.

Hygiene measures	:	Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Take off contaminated clothing and wash before reuse. Shower after work using plenty of soap and water.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	:	liquid
Color	:	Colorless.
Odor	:	Ether-like odor.

Safety data

Flash point	:	255 °F (124 °C) at 1,013 hPa (760 mm Hg) Method: PMCC
Lower explosion limit	:	No Data Available.
Upper explosion limit	:	No Data Available.
Flammability (solid, gas)	:	Not applicable
Oxidizing properties	:	Not considered an oxidizing agent.
Autoignition temperature	:	531 °F (277 °C) at 1,013 hPa (760 mm Hg)
Molecular weight	:	206.28 g/mol
Decomposition temperature	:	not determined
pH	:	Not applicable.
Melting point/freezing point	:	-108.0 °F (-77.8 °C) at 1,013 hPa (760 mm Hg)

Boiling point/boiling range	:	469.13 °F (242.85 °C) at 1,013 hPa (760 mm Hg)
Vapor pressure	:	0.017 hPa (0.013 mm Hg) at 68 °F (20 °C)
Density	:	0.965 g/cm3 at 68 °F (20 °C)
Water solubility	:	Miscible
Partition coefficient: n-octanol/water	:	log Pow: 0.31 at 68 °F (20 °C)
Viscosity, kinematic	:	5.53 mm2/s at 77 °F (25 °C) (static)
Relative vapor density	:	~7.1 at 59 - 90 °F (15 - 32 °C) (Air = 1.0)
Surface tension	:	68.8 mN/m 1,000mg/l at 68 °F (20 °C)
Evaporation rate	:	<1 (butyl acetate = 1)
Explosive properties	:	Not explosive
Remarks - Other information	:	Hygroscopic., Volatile Characteristics:, Negligible: <0.1% Additional properties may be listed in Sections 2 and 5.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Will not occur.
Chemical stability	:	Stable under recommended storage conditions.
Conditions to avoid	:	Extended contact with air or oxygen. The potential for peroxide formation is enhanced when this solvent is used in processes such as distillation. Heat, sparks, open flame, other ignition sources, and oxidizing conditions. Ignition may occur at temperatures below those published in the literature as autoignition or ignition temperatures.
Materials to avoid	:	Strong oxidizing agents.

Moisture and humidity.
May react with oxygen to form peroxides.
However, there is no known evidence that it has nearly the peroxide forming potential as, for example, diethyl ether, etc.

Hazardous decomposition products : Not expected to decompose under normal conditions.

Thermal decomposition : Incomplete combustion will form carbon monoxide and other toxic vapors.

Hazardous reactions : Not expected to occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Product Summary : The below given information is based on the assessment of the product including impurities.

Acute toxicity

Acute oral toxicity : Based on acute toxicity values, not classified.
Ingestion of very large amounts may cause CNS depression, respiratory failure, and death in cases of severe over-exposure.

: LD50: 3,400 mg/kg
Species: Rat

Acute inhalation toxicity : Based on acute toxicity values, not classified.

: LC0: > 30 ppm
Exposure time: 8 HOURS
Species: Rat

Acute dermal toxicity : Based on acute toxicity values, not classified.

: LD50: 15,400 mg/kg
Species: Rabbit

Skin corrosion/irritation : Based on skin irritation values, not classified.

Serious eye damage/eye irritation : Based on eye irritation values, not classified.
May cause slight transient eye irritation.

Respiratory or skin sensitization : Respiratory sensitization
Not classified
No study available.

: Skin sensitization
Not classified
No adverse effect observed.

Chronic toxicity

Carcinogenicity : Not classified
No adverse effect observed.

Germ cell mutagenicity : Not classified
No adverse effect observed.

Reproductive toxicity

Effects on fertility / Effects on or via lactation : Not classified
No adverse effect observed.

Effects on Development : Not classified
No adverse effect observed.

Target Organ Systemic Toxicant - Single exposure : Classified, May cause drowsiness or dizziness.

: Routes of exposure: Ingestion

Target Organ Systemic Toxicant - Repeated exposure : Based on repeated exposure toxicity values, not classified.

Aspiration hazard : Based on physico-chemical values or lack of human evidence, not classified.

12. ECOLOGICAL INFORMATION

Ecotoxicology Assessment

Acute aquatic toxicity : Based on acute aquatic toxicity values, not classified.

Chronic aquatic toxicity : Not classified, based on readily biodegradability and low acute toxicity.

Toxicity to fish :
Acute toxicity to fish is low.

Toxicity to daphnia and : Acute toxicity to freshwater and marine invertebrates is very

other aquatic invertebrates low.

Toxicity to algae : Acute toxicity to aquatic plants very low.

Toxicity to bacteria : Low toxicity to sewage microbes.

Toxicity to fish (Chronic toxicity) : no data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : no data available

Persistence and degradability

Biodegradability : 60 %
Rapidly degradable.
(After 22 days in a ready biodegradability test)

Bioaccumulative potential

Bioaccumulation : Bioconcentration factor (BCF): 3.16
Method: (QSAR calculated value)
This material is not expected to bioaccumulate.

Mobility in soil

Surface tension : 68.8 mN/m
1,000mg/l
at 20 °C

Distribution among environmental compartments : Stability in water
no data available

: Stability in soil
no data available
Low absorption to soil particulates predicted

Additional advice Environmental fate and pathways : No additional information available.

Results of PBT and vPvB assessment

Not applicable.

Other adverse effects

Additional ecological information : No additional information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Further information : Do not dump into any sewers, on the ground, or into any body of water
Any disposal practice must be in compliance with all Federal, State/Provincial and local laws and regulations
Regulations may vary in different locations

SECTION 14. TRANSPORT INFORMATION

Not regulated for transport

SECTION 15. REGULATORY INFORMATION

If identified components of this product are listed under the TSCA 12(b) Export Notification rule, they will be listed below.

SARA 302/304
This product contains no known chemicals regulated under SARA 302/304.

SARA 313
This product contains no known chemicals regulated under SARA 313.

State Reporting

This material is not known to contain a chemical substance known to the State of California to cause cancer, reproductive, or developmental toxicity under California Proposition 65. However, LyondellBasell has not tested for the presence of listed chemical substances.

This product contains no known chemicals regulated by New Jersey's Worker and Community Right to Know Act.

No components are subject to the Massachusetts Right to Know Act.

This product contains no known chemicals regulated by Pennsylvania's Right to Know Act.

Other international regulations

Global Inventory Status
The ingredients of this product are compliant with the following chemical inventory requirements or exemptions.
*Additional Explanatory Status Statements follow the table, as necessary.

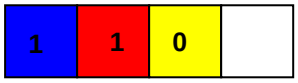
Country/Region	Inventory	Status Description
Australia	AICS	Compliant
Canada	DSL	Compliant
China	IECSC	Compliant
Europe	REACH	See REACH Compliance Statement

Japan	ENCS	Compliant
Korea	KECI	Compliant
New Zealand	NZIoC	Compliant
Philippines	PICCS	Compliant
United States of America	TSCA	Compliant
Taiwan	TCSCA	Compliant

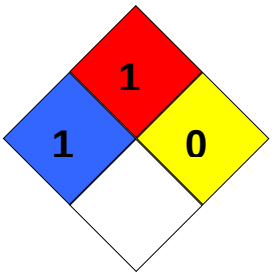
SECTION 16. OTHER INFORMATION

Further information

HMIS Classification : Health Hazard: 1
Flammability: 1
Physical hazards: 0



NFPA Classification : Health Hazard: 1
Fire Hazard: 1
Instability: 0



Other Information
HMIS rating scale (0 = minimal hazard; 4 = severe hazard)
NFPA rating scale (0 = minimal hazard; 4 = severe hazard)

Material safety datasheet sections which have been updated:
Revised Section(s): 2 4 8 11 13 15 Revision Date May 20 2015

Disclaimer

This document is generated for the purpose of distributing health, safety, and environmental data.
Information is correct to the best of our knowledge at the date of the SDS publication.
It is not a specification sheet nor should any displayed data be construed as a specification.

Disclaimer

Before using a product sold by a company of the JR Hess Company or S T Laboratories, Inc., users should make their own independent determination that the product is suitable for the intended use and can be used safely and legally. SELLER MAKES NO WARRANTY; EXPRESS OR IMPLIED (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY WARRANTY) OTHER THAN AS SEPARATELY AGREED TO BY THE PARTIES IN A CONTRACT.
This product(s) may not be used in:
(i) any U.S. FDA Class I, Health Canada Class I, and/or European Union Class I medical devices, without prior notification to Seller for each specific product and application; or (ii) the manufacture of any of the following, without prior written approval by Seller for each specific product and application: U.S. FDA Class II Medical Devices; Health Canada Class II or Class III Medical Devices; European Union Class II Medical Devices; film, overwrap and/or product packaging that is considered a part or component of one of the aforementioned medical devices; packaging in direct contact with a pharmaceutical active ingredient and/or dosage form that is intended for inhalation, injection, intravenous, nasal, ophthalmic (eye), digestive, or topical (skin) administration; tobacco related products and applications, electronic cigarettes and similar devices, and pressure pipe or fittings that are considered a part or component of a nuclear reactor. Additionally, the product(s) may not be used in: (i) U.S. FDA Class III Medical Devices; Health Canada Class IV Medical Devices; European Class III Medical Devices; (ii) applications involving permanent implantation into the body; (iii) life-sustaining medical applications; and (iv) lead, asbestos or MTBE related applications. All references to U.S. FDA, Health Canada, and European Union regulations include another country’s equivalent regulatory classification.