TAG SOLVENT PRODUCTS (PTY)LTD.

MATERIAL SAFETY DATA SHEET
ETHOXYPROPANOL

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Common name	: **ETHOXYPROPANOL**		
Supplier	: TAG Solvent Products Mallet Road/Weg Knights Germiston 1401 Republic of South Africa TEL: +27 11 280-0000		
Synonym	: Not available		
Trade name	: Ethoxypropanol		
Manufacturer	: BP Southern Africa (Pty) Ltd PO Box 6006 Roggebaai 8012 TEL: 011 408 2911 FAX: 011 4082218	**In case of emergency**	TAG: 011 822 1600 BP Southern Africa (Pty) Ltd: 0800 222 166

2 COMPOSITION / INFORMATION ON INGREDIENTS

Name	Product Trivial Name	Product Chemical Family	CAS#
: Ethoxypropanol	Propylene glycol monoethyl ether	Alkoxy alcohol	Please refer to Section 16 (Other Information)

3 HAZARDS IDENTIFICATION

Physical state and appearance	: Liquid.
Emergency overview	: WARNING! FLAMMABLE
Routes of entry	: Eye contact. Ingestion. Inhalation. Skin contact.
Potential acute health effects	
Eyes	: Liquid mist or vapour at high concentrations may cause conjunctival irritation and transient corneal damage.
Skin	: Repeated or prolonged contact may produce defatting of the skin leading to irritation and dermatitis.
Inhalation	: Exposure to vapour at high concentrations may have the following effects: irritation of the nose, throat, respiratory tract, central nervous system depression, drowsiness and loss of consciousness.
Ingestion	: Swallowing large doses may have the following effects: central nervous system depression, drowsiness loss off consciousness.

4 FIRST AID MEASURES

Eye contact	: Check for and remove any contact lenses. Immediately flush the eyes with running water for at least 10 minutes, keep eyelids open. Avoid contaminating the unaffected eye. Get medical attention if soreness or redness persists.
Skin contact	: Wash skin with water. Remove contaminated clothing. Get medical attention if blistering occurs or redness persists.
Inhalation	: If inhaled, remove to fresh air and allow victim to rest and keep warm. Get medical attention if victim feels unwell. If breathing is laboured apply oxygen, or if breathing stops give artificial respiration
Ingestion	: DO NOT induce vomiting unless directed to do so by medical personnel. Wash out mouth. Keep warm and at rest.

5 FIRE FIGHTING MEASURES

Flammability of the product	: Flammable
Auto - flammability	: 255ºC
Flash points (PMCC)	: 40ºC
Explosion limits	: LOWER: 1.3% UPPER: 12.0%
Special hazards of product	: This product may give rise to hazardous fumes ina fire. Dangerous when exposed to heat of flame. Disperse accumulating vapour with water spray
Fire fighting media and instructions	: Use water spray, foam, DRY chemical powder or carbon dioxide. Keep surrounding containers and area cool with water sprays. Disperse accumulating vapours with water spray
Protective clothing (fire)	: Be sure to use full protective clothing and self-contained breathing apparatus

6 ACCIDENTAL RELEASE MEASURES

Personal precautions	: Wear appropriate protective clothing. Wear respiratory protection. Eliminate all sources of ignition.
Environmental precautions	: Try to prevent material by use temporary bund or impervious barrier. Try to prevent material from entering drains and water sources. Advise authorities if spillage ahs entered a water source or sewer or has contaminated soil or vegetation.
Spillages	: Contain and absorb using earth, sand or other inert material. Transfer into suitable containers for recovery or disposal. Finally flush the area with plenty of water.

7 HANDLING AND STORAGE

Handling	: Use only with adequate ventilation. Avoid inhaling vapour. Avoid contact with eyes, skin and clothing. Keep container tightly closed when not in use.
Storage	: Storage area should be well ventilated and cool. Store away from sources of heat and ignition. Suitable storage materials are: mild steel, and polypropylene. For gaskets and seals use compressed asbestos butyl rubber PTFE. Where trace iron contamination or slight discoloration is critical, store in coated mild steel stainless steel

8 EXPOSURE CONTROLS, PERSONAL PROTECTION

Occupational exposure standards	: None assigned An exposure limit of 200ppm (860mg/m^3) is recommended by TAG Solvent Products (TY)LTD.
Engineering controls	: Exposure to this material may be controlled in a number of ways. The measures appropriate for a particular worksite depend on how the material is used and on the potential for exposure. Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure mechanical ventilation (dilution and local exhaust) and control process conditions. If engineering controls and work practices are not effective in preventing or controlling exposure, then suitable personal protective equipment, which is known to perform satisfactorily, should be used.
Personal protection	
Eyes	: Chemical Splash goggles or face shield.
Body	: Chemical resistant protective suite.
Respiratory	: Vapour respirator. Be sure to use an approved/certified or equivalent. Wear appropriate respirator If there is risk of exposure to high vapours.
Hands	: Butyl rubber gloves.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance	: Liquid.
Colour	: Colourless. Clear.
Odor	: Mild
Boiling/condensation point	: 130-133ºC
Melting/freezing point	: -90ºC
Solubility in water (kg/m^3)	: Completely soluable
Flammability of the product	: Flammable
Auto - flammability	: 255ºC
Flash points (PMCC)	: 40ºC

Explosion limits	: LOWER: 1.3% UPPER: 12.0%
Vapor pressure	: <1 kPa (@ 20ºC)
Density	: 896 (@20ºC)
Evapouration rate	: relative to n-Butyl acetate (reference as n-butyl acetate=1) 0.54
Viscosity	: 2.47 (@20ºC)

10 STABILITY AND REACTIVITY

Stability and reactivity	: The product is stable under normal conditions.
Conditions to avoid	: High temperatures (Heat), sources of ignition. Static discharge. Exposure to direct sunlight.
Materials to avoid	: Strong-oxidizing agents
Hazardous decomposition products	: Peroxides. Combustion will generate oxides of carbon.

11 TOXICOLOGICAL INFORMATION

Acute toxicity		: Low order of acute toxicity. Oral LD50 (rat) >4000mg/kg. Dermal LD50 (rabbit) >8000mg/kg. Inhalation LC50 (rat) 14200 mg/litre/4h
Irritancy	**Eyes**	: Single application to the rabbit eye produced conjunctival irritation and transient corneal damage (stippling/minor epithelial damage)
	Skin	: The degree of irritation was insufficient to warrant labelling as a skin irritant.
Skin senstisation		: No known reports of sin sensitisation.
Sub-acute/subchronic toxicity		: There are no reports of adverse long term effects following repeated exposure.
Genotoxicity		: No mutagenic activity has been reported.
Reproductive/developmental toxicity		: The teratogenic potential of ethoxypropanol has been evaluated in rat at vapour concentrations up to 2000ppm and in the rabbit at vapour concentrations up to 1200ppm. The high concentrations produce minimal signs of maternal toxicity in both species. There was no evidence that, in either species, exposure to vapours during pregnancy interfered with embryonal development or increased the incidence of abnormalities, variants or malformations in the offspring

12 ECOLOGICAL INFORMATION

Ecotoxicity	: Tests on the following species gave EC0 of >10000 mg/L (Algae). Tests on the following species gave EC10 of 4600mg/L (bacteria). Tests on the following species gave EC0 of >100 mg/L (fish). The product is rated as non-hazardous to aquatic species.
Mobility	: The product is involatile and water soluable and will partition to the aqueous phase
Bio-accumulation	: Product is not expected to bioaccumulate. Predicted bioconcentration factor = 1
Persistence/Degradability	: The product is readily biodegradable BOD 28 = 68% of ThOD. (Closed bottle test – BOD). BOD 28 = 78% of ThODºC (manometric respirometry test BOD).

13 DISPOSAL

Product disposal	: Incineration. If correctly incinerated this material will decompose to carbon dioxide and water only. Dispose of in accordance with all applicable local and national regulations
Container disposal	: Labels should not be removed from containers until they have been cleaned. Do not cut, puncture or weld on or near the container. Empty containers may contain hazardous residue. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers.

14 TRANSPORT INFORMATION

UK Transport information	: UK transport – Proper shipping name: Alcohol n.o.s. (ethoxypropanol) UK Transport – Class 3 UK transport – Catergory 3 UK Transport emergency Action Code: 3 (Y)
UN Number	: 1987
UN Class	: 3
Packaging group	: lll
ADR/RID - Name	: Alcohol, flammable, n.o.s.
ADR/RID - Class	: 3
ADR/RID – Item number	31(C)
ADR/RID – Hazard identification number	30
IMDG – Proper shipping name	: Alcohol, N.O.S. (ethoxypropanoL)
IMDG – Class	: 3.3
IMDG – Packaging group	: lll
IMDG – Marine pollutant	: Not listed.
IMDG – Ems number	: 306
IMDG – MFAG Table number	: 305
IATA – Proper shipping name	: Alcohols, N.O.S. (ethoxypropanoL)
IATA - Class	: 3
IATA – Packaging group	: lll
Tremcard number TEC(R)	: 30G35

15 REGULATORY INFORMATION

Labeling Information	: Flammable (no symbol required).
R phases	: R10: Flammable

S phases	: S16 Keep away from sources of ignition. No smoking. S24 Avoid contact with skin. S26 In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
EINECS Number	: All components are listed in EINECS
EC Annex l Classification	: Not classified.
MITI Number	: 7-97

15 OTHER INFORMATION

UK Legislation	: Health and safety at Work etc Act, 1974 and relevant Statutory Provisions. Management of Health and safety at Work Regulations, 1992 (and amendments. Control of Substances Hazardous to Health (COSHH) Regulations, 1988. Chemicals(Hazard Information and Packaging for Supply) Regulations, 2994.. Chemicals (Hazard Information and Packaging for Supply) Amended Regulations, 1996.
UK further detailed guidance (current editions)	: General Approved Code of Practice of COSHH Regulations, HSE. HS(G)97, A STEP-BU STEP guide to COSHH Regulations. HSE EH40. HSE. EH40, Occupational Exposure Limits, HSE. Revised Annually. Hs(G) 97, An Introduction to Local Exhaust Ventilation. HSE HS(G) 53 Respiratory Proetction Equipment – a Practical Guide to Users, HSE . HS(G)65, Successful Health And Safety Management, HSE.
References	: Toxicity Review 10 Glycol Thers, HSE, 11985

Notice to reader:

This MSDS summarizes at the date of issue our best knowledge of the health, safety and environmental hazard information related to the product, and in particular how to safely handle, use and transport the product in the workplace. Since TAG Solvent Products (PTY) LTD. and it's subsidiaries cannot anticipate or control the conditions under which the product may be handled, used, stored or transported, each user must, prior to usage, review MSDS in the context of how the user intends to handle, use, store or transport the product in the workplace and beyond, and communicate such information to all relevant parties. If clarification or further information is required to ensure that an appropriate assessment can be made, the user should contact the company.

We shall not assume any liability for the accuracy or completeness of the information contained herein or any advice given unless there has been gross negligence on our part. In such event our liability shall be limited only to direct damages suffered. Our responsibility for the product as sold is subject to our standards terms and conditions, a copy of which is sent to our customers and is also available upon request. All risk with possession and application of the product passes on delivery.