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SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Revision Date: 03/27/2015 Print Date: 04/11/2015 Version 7.0

SECTION 1. IDENTIFICATION

Product name InkAway

: U5141 Product code

Manufacturer or supplier's details

: Inkcups Corporation Company

310 Andover Street Danvers, MA. 01923

USA

978.646.8980 SDS Request

Emergency telephone number

Chemtrec Domestic (24 hr) : 1-800-424-9300 Chemtrec International (24 : 1-703-527-3887

hr)

Recommended use of the chemical and restrictions on use

Recommended use : Solvent.

Restrictions on use This product must not be used in applications other than the

above without first seeking the advice of the supplier.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 3

Specific target organ toxicity

- single exposure

: Category 3 (Narcotic effects.)

GHS Label element

Hazard pictograms





Signal word : Warning

Hazard statements PHYSICAL HAZARDS:

H226 Flammable liquid and vapour.

HEALTH HAZARDS:

H336 May cause drowsiness or dizziness.

ENVIRONMENTAL HAZARDS:

Not classified as an environmental hazard under GHS criteria.

Precautionary statements : Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. -

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 7.0 Revision Date: 03/27/2015 Print Date: 04/11/2015

No smoking.

P233 Keep container tightly closed.

P240 Ground/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.

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

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

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

P370+P378 In case of fire: Use appropriate media for extinction.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents and container to appropriate waste site or reclaimer in accordance with local and national regulations.

Other hazards which do not result in classification

Vapours are heavier than air. Vapours may travel across the ground and reach remote ignition sources causing a flashback fire danger.

Even with proper grounding and bonding, this material can still accumulate an electrostatic charge.

If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable airvapour mixtures can occur.

The classification of this material is based on OSHA HCS 2012 criteria.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 1-methoxy-2-propanol, PGME, PM, Propylene glycol mono-

methyl ether

Hazardous components

| Chemical Name | Synonyms | CAS-No. | Concentration (%) |
|-----------------------|--------------------|----------|-------------------|
| 1-Methoxypropane-2-ol | 1-methoxypropan-2- | 107-98-2 | <= 100 |
| | ol | | |

SECTION 4. FIRST-AID MEASURES

General advice : Not expected to be a health hazard when used under normal

conditions.



SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

| Version 7.0 | Revision Date: 03/27/2015 | Print Date: 04/11/2015 |
|---|---|---|
| If inhaled | : No treatment necessary under nor symptoms persist, obtain medical a | |
| In case of skin contact | : Remove contaminated clothing. Flucter and follow by washing with soat If persistent irritation occurs, obtain | p if available. |
| In case of eye contact | : Flush eye with copious quantities of If persistent irritation occurs, obtain | |
| If swallowed | : In general no treatment is necessa are swallowed, however, get medic | |
| Most important symptoms and effects, both acute and delayed | : Eye irritation signs and symptoms sation, redness, swelling, and/or bit Skin irritation signs and symptoms sation, redness, swelling, and/or bit Breathing of high vapour concentration nervous system (CNS) depression headedness, headache, nausea at Continued inhalation may result in death. | lurred vision. may include a burning sen- listers. ations may cause central resulting in dizziness, light- nd loss of coordination. |
| Protection of first-aiders | : When administering first aid, ensurappropriate personal protective eq incident, injury and surroundings. | |
| Immediate medical attention, special treatment | : Causes central nervous system de Potential for chemical pneumonitis Call a doctor or poison control cen | |

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Alcohol-resistant foam, water spray or fog. Dry chemical

powder, carbon dioxide, sand or earth may be used for small

fires only.

Unsuitable extinguishing

media

: None

Specific hazards during fire-

fighting

: The vapour is heavier than air, spreads along the ground and

distant ignition is possible.

Carbon monoxide may be evolved if incomplete combustion

occurs.

Specific extinguishing me-

thods

: Standard procedure for chemical fires.

Further information : Clear fire area of all non-emergency personnel.

Keep adjacent containers cool by spraying with water.

Special protective equipment

for firefighters

: Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in

3 / 16 800001005738

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Print Date: 04/11/2015 Version 7.0 Revision Date: 03/27/2015

> a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

SECTION 6. ACCIDENTAL RELEASE MEASURES

tive equipment and emergency procedures

Personal precautions, protec- : Observe the relevant local and international regulations Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

Local authorities should be advised if significant spillages

cannot be contained.

The vapour is heavier than air, spreads along the ground and

distant ignition is possible.

Vapour may form an explosive mixture with air.

Avoid contact with skin, eyes and clothing. Isolate hazard area and deny entry to unnecessary or unprotected personnel.

Stay upwind and keep out of low areas.

Environmental precautions

Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapor or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Ventilate contaminated area thoroughly. Monitor area with combustible gas indicator.

Methods and materials for containment and cleaning up : For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely Remove contaminated soil and dispose of safely.

Additional advice

: For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity (refer to Chapter 15) to the National Response Center at (800) 424-8802.

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 7.0 Revision Date: 03/27/2015 Print Date: 04/11/2015

SECTION 7. HANDLING AND STORAGE

Technical measures : Avoid breathing of or direct contact with material. Only use in

well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see

Chapter 8 of this Safety Data Sheet.

Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this

material.

Ensure that all local regulations regarding handling and sto-

rage facilities are followed.

Precautions for safe handling : Avoid contact with skin, eyes and clothing.

Use local exhaust ventilation if there is risk of inhalation of

vapours, mists or aerosols.

Avoidance of contact : Strong oxidising agents.

Advice on protection against

fire and explosion

Bulk storage tanks should be diked (bunded). Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment to reduce the risk. The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Do NOT use compressed air for filling, discharging, or han-

dling operations.

Product Transfer : Refer to guidance under Handling section.

Storage

Conditions for safe storage, including any incompatibili-

ties

: The vapour is heavier than air. Beware of accumulation in pits and confined spaces.

Refer to section 15 for any additional specific legislation cov-

ering the packaging and storage of this product.

Packaging material : Suitable material: For containers, or container linings use mild

steel, stainless steel.

Unsuitable material: Natural, butyl, neoprene or nitrile rubbers.

Container Advice : Containers, even those that have been emptied, can contain

explosive vapours. Do not cut, drill, grind, weld or perform

similar operations on or near containers.

Specific use(s) : Not applicable

Ensure that all local regulations regarding handling and sto-

rage facilities are followed.

See additional references that provide safe handling practices: American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practices

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 7.0 Revision Date: 03/27/2015 Print Date: 04/11/2015

on Static Electricity).

CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Value type | Control parame- | Basis |
|-----------------------|----------|------------|--------------------|-------|
| | | (Form of | ters / Permissible | |
| | | exposure) | concentration | |
| 1-Methoxypropane-2-ol | 107-98-2 | TWA | 50 ppm | ACGIH |
| | | STEL | 100 ppm | ACGIH |

Biological occupational exposure limits

No biological limit allocated.

Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods http://www.cdc.gov/niosh/

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances http://www.hse.gov.uk/

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany http://www.dguv.de/inhalt/index.jsp

L'Institut National de Recherche et de Securité, (INRS), France http://www.inrs.fr/accueil

Engineering measures

: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:

Use sealed systems as far as possible.

Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits.

Local exhaust ventilation is recommended.

Firewater monitors and deluge systems are recommended.

Eye washes and showers for emergency use.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

General Information:

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.

Practice good housekeeping.

NKŒUPS

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 7.0 Revision Date: 03/27/2015 Print Date: 04/11/2015

> Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product. Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or mainten-

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Personal protective equipment

Respiratory protection

: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing appara-

Where air-filtering respirators are suitable, select an appropriate combination of mask and filter.

If air-filtering respirators are suitable for conditions of use: Select a filter suitable for organic gases and vapors [Type A boiling point >65°C (149°F)].

Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Hand protection Remarks

: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. Longer term protection: Nitrile rubber gloves. Incidental contact/Splash protection: PVC, neoprene or nitrile rubber gloves For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 7.0 Revision Date: 03/27/2015 Print Date: 04/11/2015

care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Eye protection : If material is handled such that it could be splashed into eyes,

protective eyewear is recommended.

Skin and body protection : Skin protection is not required under normal conditions of

use.

For prolonged or repeated exposures use impervious clothing

over parts of the body subject to exposure.

If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to relevant Standard, and provide employee skin care programmes. Wear antistatic and flame retardant clothing, if a local risk

assessment deems it so.

Protective measures : Personal protective equipment (PPE) should meet recom-

mended national standards. Check with PPE suppliers.

Hygiene measures : Wash hands before eating, drinking, smoking and using the

toilet.

Launder contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid.

Colour : clear

Odour : Ethereal

Odour Threshold : Data not available

pH : Not applicable

Melting / freezing point : -96 °C / -141 °F

Boiling point/boiling range : $117 - 125 \, ^{\circ}\text{C} / 243 - 257 \, ^{\circ}\text{F}$

Flash point : $30 \,^{\circ}\text{C} / 86 \,^{\circ}\text{F}$

Evaporation rate : 0.75

Method: ASTM D 3539, nBuAc=1

Flammability (solid, gas) : Not applicable

Upper explosion limit : 13.1 %(V)

Lower explosion limit : 1.9 %(V)

Vapour pressure : 1.170 Pa (20 °C / 68 °F)

Relative vapour density : 3.1

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR

1910.1200

Version 7.0 Revision Date: 03/27/2015 Print Date: 04/11/2015

Relative density : 0.92 (20 °C / 68 °F)

Density : 920 - 923 kg/m3 (20 °C / 68 °F)

Method: ASTM D4052

Solubility(ies)

Water solubility : completely soluble (20 °C / 68 °F)

Partition coefficient: n-

octanol/water

: log Pow: 0.37

Auto-ignition temperature : 290 °C / 554 °F

Decomposition temperature : no data available

Viscosity

Viscosity, dynamic : Data not available

Viscosity, kinematic : Data not available

Explosive properties : Not applicable

Oxidizing properties : Data not available

Surface tension : 70.7 mN/m, 20 °C / 68 °F

Conductivity: > 10 000 pS/m, A number of factors,

for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid, This material is not expected to be a static accumu-

lator.

Molecular weight : 90.12 g/mol

SECTION 10. STABILITY AND REACTIVITY

Reactivity : The product does not pose any further reactivity hazards in

addition to those listed in the following sub-paragraph.

Chemical stability : No hazardous reaction is expected when handled and stored

according to provisions

Possibility of hazardous reac-

tions

: Reacts with strong oxidising agents.

Conditions to avoid : Avoid heat, sparks, open flames and other ignition sources.

Prevent vapour accumulation.

In certain circumstances product can ignite due to static elec-

tricity.

Incompatible materials : Strong oxidising agents.

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Print Date: 04/11/2015 Version 7.0 Revision Date: 03/27/2015

Hazardous decomposition

products

: Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulphur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment : Information given is based on product testing.

Information on likely routes of exposure

Exposure may occur via inhalation, ingestion, skin absorption, skin or eye contact, and accidental ingestion.

Acute toxicity

Product:

Acute oral toxicity : LD 50 : > 2,000 - 5,000 mg/kg

Remarks: May be harmful if swallowed.

Acute inhalation toxicity : Remarks: Low toxicity by inhalation.

Acute dermal toxicity : LD 50 : > 5,000 mg/kg

Remarks: Low toxicity:

Skin corrosion/irritation

Product:

Remarks: Not irritating to skin., Prolonged/repeated contact may cause defatting of the skin. which can lead to dermatitis.

Serious eye damage/eye irritation

Product:

Remarks: Expected to be slightly irritating.

Respiratory or skin sensitisation

Product:

Remarks: Not a skin sensitiser.

Germ cell mutagenicity

Product:

: Remarks: No evidence of mutagenic activity.

Carcinogenicity

Product:

Remarks: Not carcinogenic in animal studies.

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 7.0 Revision Date: 03/27/2015 Print Date: 04/11/2015

IARC No component of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

ACGIH No component of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential carcino-

gen by ACGIH.

OSHA No component of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential carcino-

gen by OSHA.

NTP No component of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

Reproductive toxicity

Product:

Remarks: Does not impair fertility., Causes foetotoxicity in

animals at doses which are maternally toxic.

STOT - single exposure

Product:

Remarks: High concentrations may cause central nervous system depression resulting in head-aches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.

STOT - repeated exposure

Repeated dose toxicity

Product:

Remarks: Not expected to be a hazard.

Kidney: caused kidney effects in male rats which are not considered relevant to humans

Aspiration toxicity

Product:

Not considered an aspiration hazard.

Further information

Product:

Remarks: Classifications by other authorities under varying regulatory frameworks may exist.

SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment : Unless indicated otherwise, the data presented is representa-

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Print Date: 04/11/2015 Version 7.0 Revision Date: 03/27/2015

tive of the product as a whole, rather than for individual com-

ponent(s).

Ecotoxicological data are based on product testing.

Ecotoxicity

Product:

Toxicity to fish (Acute toxic-

: LC50: > 100 mg/l

: EC50: > 100 mg/l

Remarks: Practically non toxic:

Remarks: Practically non toxic:

Toxicity to daphnia and other

aquatic invertebrates (Acute toxicity)

Toxicity to algae (Acute toxic-

ity)

: EC50: > 100 mg/l

Remarks: Practically non toxic:

Toxicity to fish (Chronic toxic-

ity)

: Remarks: Data not available

Toxicity to daphnia and other

aquatic invertebrates (Chron-

ic toxicity)

: Remarks: Data not available

Toxicity to bacteria (Acute

toxicity)

: Remarks: Data not available

Persistence and degradability

Product:

Biodegradability : Remarks: Readily biodegradable meeting the 10 day window

criterion.

Oxidises rapidly by photo-chemical reactions in air.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Not expected to bioaccumulate significantly.

Mobility in soil

Product:

: Remarks: If product enters soil, it will be highly mobile and Mobility

may contaminate groundwater.

Dissolves in water.

Other adverse effects

no data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Recover or recycle if possible.

It is the responsibility of the waste generator to determine the

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 7.0 Revision Date: 03/27/2015 Print Date: 04/11/2015

toxicity and physical properties of the material generated to determine the proper waste classification and disposal me-

thods in compliance with applicable regulations.

Do not dispose into the environment, in drains or in water

courses

Waste product should not be allowed to contaminate soil or

water.

Contaminated packaging : Drain container thoroughly.

After draining, vent in a safe place away from sparks and fire.

Residues may cause an explosion hazard.
Do not, puncture, cut, or weld uncleaned drums.
Send to drum recoverer or metal reclaimer.

Local legislation

Remarks : Local regulations may be more stringent than regional or na-

tional requirements and must be complied with.

Disposal should be in accordance with applicable regional,

national, and local laws and regulations.

Comply with any local recovery or waste disposal regulations.

SECTION 14. TRANSPORT INFORMATION

National Regulations

US Department of Transportation Classification (49 CFR Parts 171-180)

UN/ID/NA number : UN 3092

Proper shipping name : 1-METHOXY-2-PROPANOL

Class : 3
Packing group : III
Labels : 3
ERG Code : 129
Marine pollutant : no

International Regulation

IATA-DGR

UN/ID No. : UN 3092

Proper shipping name : 1-METHOXY-2-PROPANOL

Class : 3
Packing group : III
Labels : 3

IMDG-Code

UN number : UN 3092

Proper shipping name : 1-METHOXY-2-PROPANOL

Class : 3
Packing group : III
Labels : 3
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 7.0 Revision Date: 03/27/2015 Print Date: 04/11/2015

Pollution category : Z Ship type : 2

Product name : Propylene glycol monoalkyl ether

Special precautions : Refer to Chapter 7, Handling & Storage, for special precau-

tions which a user needs to be aware of or needs to comply

with in connection with transport.

Special precautions for user

Remarks : Special Precautions: Refer to Chapter 7, Handling & Storage,

for special precautions which a user needs to be aware of or

needs to comply with in connection with transport.

Additional Information: This product may be transported under nitrogen blanketing.

Nitrogen is an odourless and invisible gas. Exposure to nitrogen may cause asphyxiation or death. Personnel must observe strict safety precautions when involved with a confined

space entry.

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : This material is considered hazardous by the OSHA Hazard

Communication Standard (29 CFR 1910.1200).

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Fire Hazard

SARA 302 : No chemicals in this material are subject to the reporting

requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Water Act

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

Pennsylvania Right To Know

1-Methoxypropane-2-ol 107-98-2

New Jersey Right To Know

1-Methoxypropane-2-ol 107-98-2

California Prop 65 This product does not contain any chemicals known to State

of California to cause cancer, birth defects, or any other re-

productive harm.

The components of this product are reported in the following inventories:

14 / 16 800001005738

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Revision Date: 03/27/2015 Print Date: 04/11/2015 Version 7.0

AICS : Listed

DSL : Listed

IECSC : Listed

ENCS : Listed

KECI : Listed

NZIoC : Listed

PICCS : Listed

CH INV : Listed

TSCA : Listed

Other regulations : The regulatory information is not intended to be

comprehensive. Other regulations may apply to this material.

SECTION 16. OTHER INFORMATION

Further information

NFPA Rating (Health, Fire, Reac- 0, 3, 0

tivity)

A vertical bar (I) in the left margin indicates an amendment from the previous version. Due to the conversion of this product to GHS classification and labelling, there has been a significant change to the nature of the information presented in chapter 2.

Abbreviations and Acronyms : The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific

dictionaries) and/or websites.

ACGIH = American Conference of Governmental Industrial

Hygienists

ADR = European Agreement concerning the International

Carriage of Dangerous Goods by Road

AICS = Australian Inventory of Chemical Substances ASTM = American Society for Testing and Materials

BEL = Biological exposure limits

BTEX = Benzene, Toluene, Ethylbenzene, Xylenes

CAS = Chemical Abstracts Service

CEFIC = European Chemical Industry Council CLP = Classification Packaging and Labelling

COC = Cleveland Open-Cup

DIN = Deutsches Institut fur Normung DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level

DSL = Canada Domestic Substance List

EC = European Commission

EC50 = Effective Concentration fifty

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 7.0 Revision Date: 03/27/2015 Print Date: 04/11/2015

ECETOC = European Center on Ecotoxicology and Toxicology Of Chemicals

ECHA = European Chemicals Agency

EINECS = The European Inventory of Existing Commercial

Chemical Substances

EL50 = Effective Loading fifty

ENCS = Japanese Existing and New Chemical Substances

Inventory

EWC = European Waste Code

GHS = Globally Harmonised System of Classification and

Labelling of Chemicals

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IC50 = Inhibitory Concentration fifty

IL50 = Inhibitory Level fifty

IMDG = International Maritime Dangerous Goods

INV = Chinese Chemicals Inventory

IP346 = Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables

KECI = Korea Existing Chemicals Inventory

LC50 = Lethal Concentration fifty

LD50 = Lethal Dose fifty per cent.

LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading

LL50 = Lethal Loading fifty

MARPOL = International Convention for the Prevention of

Pollution From Ships

NOEC/NOEL = No Observed Effect Concentration / No Observed Effect Local

served Effect Level

OE_HPV = Occupational Exposure - High Production Volume

PBT = Persistent, Bioaccumulative and Toxic

PICCS = Philippine Inventory of Chemicals and Chemical

Substances

PNEC = Predicted No Effect Concentration

REACH = Registration Evaluation And Authorisation Of

Chemicals

RID = Regulations Relating to International Carriage of Dan-

gerous Goods by Rail

SKIN_DES = Skin Designation

STEL = Short term exposure limit

TRA = Targeted Risk Assessment

TSCA = US Toxic Substances Control Act

TWA = Time-Weighted Average

vPvB = very Persistent and very Bioaccumulative

Sources of key data used to compile the Safety Data

Sheet

 The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU

IUCLID date base, EC 1272 regulation, etc).

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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