

SAFETY DATA SHEET

QUANTUM PREMIUM SCREENWASH CONCENTRATE

| 1. Identification of the | e Substance/Mixture and Company/Undertaking |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 1.1. Product identifier | |
| Product Name: Quan | tum Premium Screenwash Concentrate |
| Product Number: ZG | BOOQPSWC100, ZGBOOQPSWC01L, ZGBOOQPSWC05L |
| 1.2. Relevant identifie | ed uses of the substance or mixture and uses advised against |
| Identified uses: All pu | urpose automotive windscreen cleaner. |
| - | : This product is not recommended for any industrial, professional or consumer use fied uses stated above. |
| 1.3. Details of the sup | plier of the safety data sheet |
| Supplier: Quantum | |
| Quantum is a registe Blakeland, Milton Key | red trade mark of Volkswagen Group United Kingdom Limited. Yeomans Drive, ynes MK14 5AN. |
| Emergency Telepho | ne Number: +44 (0) 1908 601601 |
| 2. Hazards Identificat | tion |
| | the substance or mixture /45/EEC): Xn;R20/21/22, R68/20/21/22. R10. |
| 2.2. Label elements | |
| Contains: | ETHANOL |
| Labelling: | METHANOL |
| Detergent Labelling | : < 5% perfumes |
| Labelling: | See symbol opposite. |
| Risk Phrases | |
| R10: | Flammable |
| R20/21/22: | Harmful by inhalation, in contact with skin and if swallowed. |
| R68/20/21/22: | Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed. |
| Safety Phrases | |
| S2: | Keep out of the reach of children. |
| S13: | Keep away from food, drink and animal feeding stuffs. |
| S23: | Do not breathe vapour/spray. |
| S36/37: | Wear suitable protective clothing and gloves. |
| S46: | If swallowed, seek medical advice immediately and show this container or label. |
| S51: | Use only in well-ventilated areas. |
| S56: | Dispose of this material and its container to hazardous or special waste collection point. |

2.3. Other hazards

This product does not contain any PBT or vPvB substances.



3. Composition/Information on Ingredients

3.2. Mixtures

2-BUTOXYETHANOL: 1-5% **CAS Number:** 111-76-2 Classification (EC 1272/2008) Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319

ETHANEDIOL: 1-5% CAS Number: 107-21-1 Classification (EC 1272/2008) Acute Tox. 4 - H302

ETHANOL: 10-30% **CAS Number:** 64-17-5 Classification (EC 1272/2008) Flam. Liq. 2 - H225

METHANOL: 5-10%

CAS Number: 67-56-1 Classification (EC 1272/2008) Flam. Liq. 2 - H225 Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 3 - H331 STOT SE 1 - H370 **EC Number:** 203-905-0 Classification (67/548/EEC) Xn;R20/21/22 Xi;R36/38

EC Number: 203-473-3 Classification (67/548/EEC) Xn;R22

EC Number: 200-578-6 Classification (67/548/EEC) F;R11

EC Number: 200-659-6 Classification (67/548/EEC) F;R11 T;R23/24/25,R39/23/24/25

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.



4. First Aid Measures

4.1 Description of first aid measures

General information: General first aid, rest, warmth and fresh air. Do not give victim anything to drink if they are unconscious. Get medical attention if any discomfort continues.

Inhalation: Remove victim immediately from source of exposure. NOTE! Keep affected person away from heat, sparks and flames! Provide rest, warmth and fresh air. Get medical attention if any discomfort continues. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.

Ingestion: DO NOT INDUCE VOMITING! Rinse mouth thoroughly. Provide rest, warmth and fresh air. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Get medical attention immediately!

Skin contact: Remove affected person from source of contamination. Immediately remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact: Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention if any discomfort continues.

4.2 Most important symptoms and effects, both acute and delayed

General information: The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

Inhalation: In the unlikely event of over exposure to organic solvent vapours from this product, symptoms which may develop include headache, fatigue, dizziness and nausea.

Ingestion: Ingestion may result in unconsciousness, blindness and death.

Skin contact: Skin irritation.

Eye contact: May cause blurred vision and serious eye damage.

4.3 Indication of any immediate medical attention and special treatment needed.

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

5. Firefighting Measures

5.1 Extinguishing media

Extinguishing media: Use fire-extinguishing media appropriate for surrounding materials. Fire can be extinguished using: Alcohol resistant foam. Carbon dioxide (CO_2). Water spray, fog or mist. Dry chemicals, sand, dolomite etc.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Unusual Fire & Explosion Hazards: May explode when heated or when exposed to flames or sparks. Solvent vapours may form explosive mixtures with air. Vapours are heavier than air and may spread near ground to sources of ignition. May travel considerable distance to source of ignition and flash back. May form explosive or toxic mixtures with air. Vapour explosion and poison hazard indoors, outdoors and in sewers.

Specific hazards: Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂).

5.3 Advice for firefighters

Special fire fighting procedures: Cool containers exposed to flames with water until well after the fire is out. **Protective equipment for fire-fighters:** Wear full protective clothing. Use air-supplied respirator during fire fighting.



6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures: Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. Wear protective gloves and, in case of splashes, goggles/face shield too. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation. In case of spills, beware of slippery floors and surfaces. Take precautionary measures against static discharges. Do not smoke, use open fire or other sources of ignition.

6.2 Environmental precautions: Do not discharge into drains, water courses or onto the ground. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

6.3 Methods and material for containment and cleaning up: Clean-up personnel should use respiratory and/ or liquid contact protection. Stop leak if possible without risk. DO NOT touch spilled material! Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Provide ventilation and confine spill. Do not allow runoff to sewer. Cover large spillage with alcohol-resistant foam. Dam and absorb spillage with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

6.4 Reference to other sections: For personal protection, see section 8. See section 11 for additional information on health hazards. For waste disposal, see section 13.

7. Handling and Storage

7.1 Precautions for safe handling: Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. During application and drying, solvent vapours will be emitted.

7.2 Conditions for safe storage, including any incompatibilities: Store in tightly closed original container in a dry, cool and well-ventilated place. Flammable/combustible – Keep away from oxidisers, heat and flames. Take precautionary measures against static discharges.

Storage Class: Flammable liquid storage.

7.3 Specific end use(s): The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/Personal Protection

8.1 Control parameters

| Name | STD | TWA - 8 Hrs | | STEL - 15 Min | | Notes |
|-----------------|-----|-------------|------------------------|---------------|-----------------------|-------|
| 2-BUTOXYETHANOL | WEL | 25 ppm | 123 mg/m ³ | 50 ppm | 246 mg/m ³ | Sk |
| ETHANEDIOL | WEL | | 10 mg/m ³ | | 104 mg/m ³ | Sk |
| ETHANOL | WEL | 1000 ppm | 1920 mg/m ³ | | | |
| METHANOL | WEL | 200 ppm | 266 mg/m ³ | 250 ppm | 333 mg/m ³ | Sk |

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through skin.



METHANOL (CAS: 67-56-1) DNEL Dermal Industry Short Term Systemic Effects 40 mg/kg/day Industry Dermal Long Term Systemic Effects 40 mg/kg/day Inhalation Short Term 260 mg/m³ Industry Systemic Effects Industry Inhalation Long Term Systemic Effects 260 mg/m³ Oral Short Term Consumer Systemic Effects 8 mg/kg/day Oral Consumer Long Term Systemic Effects 8 mg/kg/day Dermal Short Term Systemic Effects 8 mg/kg/day Consumer Long Term Consumer Dermal Systemic Effects 8 mg/kg/day 50 mg/m³ Consumer Inhalation Short Term Systemic Effects PNEC Freshwater 154 mg/l Marinewater 15.4 mg/l Soil 23.5 mg/kg STP 100 mg/l 2-BUTOXYETHANOL (CAS: 111-76-2) DNEL mg/kg/day Dermal Short Term 89 Industry Short Term Inhalation 663 mg/m³ Industry Industry Dermal Long Term 75 mg/kg/day Industry Inhalation Long Term 98 mg/m³ Consumer Dermal Short Term 44.5 mg/kg/day Oral Short Term 13.4 mg/kg/day Consumer Inhalation Short Term 123 mg/m³ Consumer 49 Consumer Inhalation Long Term mg/m³ PNEC Freshwater 8.8 mg/l Marinewater 8.8 mg/l 2.8 Soil mg/kg



8. Exposure Controls/Personal Protection (con't)

ETHANEDIOL (CAS: 107-21-1)

| DNEL | | | | |
|-----------------------|------------|-----------|------------------|----------------------|
| Industry | Dermal | Long Term | Systemic Effects | 106 mg/kg/day |
| Industry | Inhalation | Long Term | Local Effects | 35 mg/m ³ |
| Consumer | Dermal | Long Term | Systemic Effects | 53 mg/kg/day |
| Consumer | Inhalation | Long Term | Local Effects | 7 mg/m ³ |
| PNEC | | | | |
| Freshwater | 10 | mg/l | | |
| Marinewater | 1 | mg/l | | |
| Sediment (Freshwater) | 20.9 | mg/kg | | |
| Intermittent release | 10 | mg/l | | |
| Soil | 1.53 | mg/kg | | |
| STP | 199.5 | mg/l | | |

8.2. Exposure controls

Protective equipment: See symbols opposite.

Process conditions: Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station.



Engineering measures: Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Respiratory equipment: In case of inadequate ventilation or when the product is heated, use suitable respiratory equipment with gas filter (type A2).

Hand protection: Protective gloves and goggles must be used if there is a risk of direct contact or splash. In case of intensive contact, wear protective gloves (EN 374). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Use protective gloves made of: Appropriate Material – Butyl, Material Thickness – 0.6 to 0.8mm, Breakthrough Time – 8Hrs.

Eye protection: Wear splash-proof eye goggles to prevent any possibility of eye contact. Contact lenses should not be worn when working with this chemical!

Other Protection: Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Hygiene measures: No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals. Wash promptly with soap & water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

Skin protection: Wear apron or protective clothing in case of contact. Barrier cream applied before work may make it easier to clean the skin after exposure, but does not prevent absorption through the skin.

Environmental Exposure Controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.



| 9. Physical and Chemical P | roperties |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 9.1. Information on basic p | physical and chemical properties |
| Appearance: | Coloured liquid |
| Colour: | Blue |
| Odour: | Odour of alcohol. Lemon. Perfume |
| Solubility: | Completely soluble in water Very soluble in: Alcohol Practically insoluble in: Hydrocarbons. Aromatic solvents |
| Initial boiling point and boiling range (°C): | circa 95°C 760 mm Hg |
| Melting point (°C) | Below -30°C |
| Relative density | 0.950 20°C |
| pH-Value, Conc. Solution | 6.0 to 9.0 |
| Flash point (°C) | 28°C CC (Closed cup) |
| Flammability Limit - Lower(%) | 3.3% v/v ETHANOL IN AIR |
| Flammability Limit - Upper(%) | 19.0% v/v ETHANOL IN AIR |
| Comments | Information given concerns the concentrated solution. |
| 9.2. Other information | |
| Volatile Organic Compound (VOC) | 330 g/litre |

10. Stability and Reactivity

10.1. Reactivity

No specific reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Not applicable.

Hazardous Polymerisation: Will not polymerise.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid contact with strong oxidisers.

10.5. Incompatible materials

Materials To Avoid: Strong oxidising substances. Strong acids. Strong alkalis.

10.6. Hazardous decomposition products

Fire creates: Acrid smoke/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂).



11. Toxicological Information

11.1. Information on toxicological effects

Inhalation: Harmful: possible risk of irreversible effects through inhalation. Vapours may irritate throat and respiratory system and cause headache, dizziness and dullness. In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea.

Ingestion: Harmful: possible risk of irreversible effects if swallowed. May cause nausea, headache, dizziness and intoxication. Ingestion of large amounts may cause headaches, nausea, vomiting, abdominal pain, drowsiness and unconciousness. Methanol can cause blindness when ingested.

Skin contact:

Harmful: possible risk of irreversible effects in contact with skin. Contains components which may penetrate the skin. Acts as a defatting agent on skin. May cause cracking of skin, and eczema.

Eye contact: May cause temporary eye irritation.

Health Warnings: Not expected to be a health hazard when used under normal conditions.

Route of entry: Inhalation. Ingestion. Skin absorption.

Target Organs: Central nervous system, Eyes, Gastro-intestinal tract, Kidneys, Liver, Respiratory system, lungs, Blood.

Medical Symptoms: If swallowed, especially in large quantities: Nausea, vomiting. Severe abdominal pain. Central nervous system depression. Blindness. Unconsciousness, possibly death.

Medical Considerations: Irritation of eyes and mucous membranes. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Visual disturbances, incl. blurred vision.

Specific effects: Risk of long-term effects is considered to be minimal from exposure to concentrations below the level of OEL. Prolonged or frequent inhalation of vapours in high concentrations may cause permanent damage to the nervous system, including the brain.

Toxicological information on ingredients.

METHANOL (CAS: 67-56-1)

Acute toxicity:

Acute Toxicity (Oral LD50)> 1187 mg/kg RatAcute Toxicity (Dermal LC50)~ 17100 mg/kg RabbitAcute Toxicity (Inhalation LC50)128.2 mg/l (vapours) Rat 4 hoursSkin Corrosion/Irritation: Not irritating.Serious eye damage/irritation: Not irritating.Respiratory or skin sensitisation:Respiratory sensitisation

Guinea Pig

Not sensitising.

Germ cell mutagenicity: Negative. This substance has no evidence of mutagenic properties.

Carcinogenicity: This substance has no evidence of carcinogenic properties.

Reproductive Toxicity:

Reproductive Toxicity - Fertility

Fertility: NOAEC 1.33 mg/l Rat

Conclusive data but not sufficient for classification.



11. Toxicological Information (con't) Specific target organ toxicity - single exposure: **STOT - Single exposure** LOAEL 2000 mg/kg Oral Rat Target Organs: Eyes Specific target organ toxicity - repeated exposure: **STOT - Repeated exposure** NOAEC 0.13 mg/l/6hr/day Inhalation. Rat Target Organs: Heart & cardiovascular system, Liver, Brain ETHANOL (CAS: 64-17-5) Acute toxicity: Acute Toxicity (Oral LD50) 6200 mg/kg Rat Acute Toxicity (Dermal LD50) > 20000 mg/kg Rabbit Acute Toxicity (Inhalation LC50) 124.7 mg/l (vapours) Rat 4 hours Skin Corrosion/Irritation: Slightly irritating. Rabbit Serious eye damage/irritation: Slightly Irritating. Rabbit Aspiration hazard: Ingestion After absorption: euphoria. After a latency period: dizziness, inebriation, paralysis, cyanosis, narcosis, respiratory paralysis. 2-BUTOXYETHANOL (CAS: 111-76-2) Acute toxicity: Acute Toxicity (Oral LD50) 470 mg/kg Rat Acute Toxicity (Dermal LD50) 220 mg/kg Rabbit Acute Toxicity (Inhalation LC50) 2211 mg/l (vapours) Rat 4 hours Skin Corrosion/Irritation: Slightly irritating. Rabbit Serious eye damage/irritation: Slightly Irritating, Rabbit



11. Toxicological Information (con't)

ETHANEDIOL (CAS: 107-21-1)

Acute toxicity

Acute Toxicity (Oral LD50)7712 mg/kg RatAcute Toxicity (Dermal LD50)> 3500 mg/kg MouseAcute Toxicity (Inhalation LC50)> 2.5 mg/l (vapours) RatSkin Corrosion/Irritation: Not irritating. RabbitSerious eye damage/irritation: Not Irritating. RabbitDespiratory or skin consistication

Respiratory or skin sensitisation

Respiratory sensitisation: Guinea Pig Not sensitising.

Skin sensitisation: Guinea Pig Not sensitising.

Aspiration hazard

Inhalation: At room temperature, exposure to vapor is minimal due to low volatility. With good ventilation, single exposure is not expected to cause adverse effects. If material is heated or areas are poorly ventilated, vapor/mist may accumulate and cause respiratory irritation and symptoms such as headache and nausea.

Ingestion: Oral toxicity is expected to be moderate in humans due to ethylene glycol even though tests with animals show a lower degree of toxicity. Ingestion of quantities (approximately 65 mL (2 oz.) for diethylene glycol or 100 mL (3 oz.) for ethylene glycol) has caused death in humans. May cause nausea and vomiting. May cause abdominal discomfort or diarrhea. Excessive exposure may cause central nervous system effects, cardiopulmonary effects (metabolic acidosis), and kidney failure. For Ethylene glycol: Lethal Dose, Human, adult 100 ml LD50, rat, male and female 7, 712 mg/kg.

Skin contact: Prolonged skin contact is unlikely to result in absorption of harmful amounts. Repeated skin exposure to large quantities may result in absorption of harmful amounts. Massive contact with damaged skin or of material sufficiently hot to burn skin may result in absorption of potentially lethal amounts.

Eye contact: May cause temporary eye irritation. Spray and vapour in the eyes may cause irritation and smarting.

Route of entry: Ingestion. Kidneys. Liver.



12. Ecological Information

Ecotoxicity

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.1. Toxicity **Acute Fish Toxicity** Not considered toxic to fish. **Ecological information on ingredients METHANOL (CAS: 67-56-1) Acute Toxicity - Fish:** LC50 96 hours 15400 mg/l Lepomis macrochirus (Bluegill) Acute Toxicity: Aquatic Invertebrates EC50 48 hours > 10000 mg/l Daphnia magna Acute Toxicity: Aquatic Plants EC50 96 hours ~ 22000 mg/l ETHANOL (CAS: 64-17-5) **Acute Toxicity - Fish:** LC50 96 hours 15300 mg/l Pimephales promelas (Fat-head Minnow) Acute Toxicity: Aquatic Invertebrates EC50 48 hours 9268 - 14221 mg/l Daphnia magna Acute Toxicity: Aquatic Plants LOEC 192 hours 5000 mg/l Scenedesmus subspicatus Acute Toxicity: Microorganisms LOEC 6500 (16hr) mg/l 2-BUTOXYETHANOL (CAS: 111-76-2) Acute Toxicity - Fish: LC50 96 hours > 50 - 70 mg/l Brachydanio rerio (Zebra Fish) LC50 96 hours 77 mg/l Pimephales promelas (Fat-head Minnow) Acute Toxicity: Aquatic Invertebrates EC50 48 hours 665 mg/l Daphnia magna Acute Toxicity: Aquatic Plants EC50 900 mg/l Scenedesmus subspicatus ETHANEDIOL (CAS: 107-21-1) Acute Toxicity - Fish: LC50 96 hours 72860 mg/l Pimephales promelas (Fat-head Minnow) Acute Toxicity: Aquatic Invertebrates EC50 48 hours > 100 mg/l Daphnia magna Acute Toxicity: Aquatic Plants EC50 96 hours 6500 - 13000 mg/l Selenastrum capricornutum Acute Toxicity: Microorganisms EC20 30 min > 1995 mg/l Activated sludge



12. Ecological Information (con't)

12.2. Persistence and degradability

Degradability: The product is biodegradable, but it must not be discharged into drains without permission from the authorities.

The surfactant(s) contained in this preparation complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Ecological information on ingredients

METHANOL (CAS: 67-56-1)

The substance is readily biodegradable.

ETHANOL (CAS: 64-17-5) Degradability: The product is biodegradable.

2-BUTOXYETHANOL (CAS: 111-76-2) Degradability: The product is biodegradable.

ETHANEDIOL (CAS: 107-21-1)

Degradability: The product is biodegradable.

Biodegradation: Degradation (90 - 100%) 10 days

Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% biodegradation in OECD test(s) for inherent biodegradability).

12.3. Bioaccumulative potential

Bioaccumulative potential: The product does not contain any substances expected to be bioaccumulating. **Ecological information on ingredients**

METHANOL (CAS: 67-56-1)

Bioaccumulative potential: Not potentially bioaccumulative. **Partition coefficient:** ~ 0.77

ETHANOL (CAS: 64-17-5) Partition coefficient: log Pow < 2

2-BUTOXYETHANOL (CAS: 111-76-2) Partition coefficient: log Pow < 2

ETHANEDIOL (CAS: 107-21-1)

Bioaccumulative potential: Not potentially bioaccumulative.

Partition coefficient: log Pow -1.36



12. Ecological Information (con't)

12.4. Mobility in soil

Mobility: The product is soluble in water.

Ecological information on ingredients

METHANOL (CAS: 67-56-1)

Mobility

The product is soluble in water. The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

2-BUTOXYETHANOL (CAS: 111-76-2)

Mobility: The product is soluble in water. **Henry's Law Constant:** 0.0098 Pa m3/mol

ETHANEDIOL (CAS: 107-21-1)

Mobility: The product is soluble in water. Volatilization from natural bodies of water or moist soil is not expected to be an important fate process. Potential for mobility in soil is very high.

Adsorption/Desorption Coefficient: Soil Koc ~ 1

Henry's Law Constant: ~ 8.05E-09 atm m3/mol 25°C

12.5. Results of PBT and vPvB assessment This product does not contain any PBT or vPvB substances.

Ecological information on ingredients

METHANOL (CAS: 67-56-1)

Not Classified as PBT/vPvB by current EU criteria.

2-BUTOXYETHANOL (CAS: 111-76-2) Not Classified as PBT/vPvB by current EU criteria.

ETHANEDIOL (CAS: 107-21-1)

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects Not applicable.

13. Disposal Considerations

General information

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority. The packaging must be empty (drop-free, when inverted).

13.1. Waste treatment methods

Absorb in vermiculite or dry sand and dispose of at a licenced hazardous waste collection point. Make sure containers are empty before discarding (explosion risk).



14. Transport Information

14.1. UN number:

UN No. (ADR/RID/ADN) 1992 UN No. (IMDG) 1992 UN No. (ICAO) 1992

14.2. UN proper shipping name

Proper Shipping Name: FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHANOL, METHANOL)

14.3. Transport hazard class(es)

| ADR/RID/ADN Class | 3 |
|-----------------------------|-----------------------------|
| ADR/RID/ADN Class | Class 3: Flammable liquids. |
| ADR/RID/ADN Subsidiary Risk | 6.1 |
| ADR Label No. | 3 & 6.1 |
| IMDG Class | 3 |
| IMDG Subsidiary risk | 6.1 |
| ICAO Class/Division | 3 |
| ICAO Subsidiary risk | 6.1 |
| Transport Labels | See symbol opposite. |
| | |



14.4. Packing group

| ADR/RID/ADN Packing group | |
|---------------------------|--|
| IMDG Packing group | |
| ICAO Packing group | |

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant: No.

14.6. Special precautions for user

| EMS | F-E, S-D |
|-------------------------|----------|
| Emergency Action Code | •3W |
| Hazard No. | 36 |
| Tunnel Restriction Code | (D/E) |

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.



15. Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture Environmental Listing

Control of Pollution (Special Waste Regulations) Act 1980.

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Approved Code Of Practice

Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37. CHIP for everyone HSG(108).

EU Legislation

Dangerous Substance Directive 67/548/EEC. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.



| 16. Other Inform | ation |
|------------------|---------------------------------------------------------------------------------------------------------------|
| Revision Comm | ents: NOTE: Lines within the margin indicate significant changes from the previous revision. |
| Issued By: HS&E | E Manager. |
| Revision: 3 | |
| Date: Jan 2014 | |
| Risk Phrases In | Full |
| R10 | Flammable. |
| R20/21/22 | Harmful by inhalation, in contact with skin and if swallowed. |
| R22 | Harmful if swallowed. |
| R68/20/21/22 | Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed. |
| R11 | Highly flammable. |
| R36/38 | Irritating to eyes and skin. |
| R23/24/25 | Toxic by inhalation, in contact with skin and if swallowed. |
| R39/23/24/25 | Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. |
| Hazard Stateme | ents in Full |
| H370 | Causes damage to organs. |
| H319 | Causes serious eye irritation. |
| H315 | Causes skin irritation. |
| H226 | Flammable liquid and vapour. |
| H332 | Harmful if inhaled. |
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H225 | Highly flammable liquid and vapour. |
| H371 | May cause damage to organs. |
| H331 | Toxic if inhaled. |
| H301 | Toxic if swallowed. |
| H311 | Toxic in contact with skin. |

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.