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SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006

TEC-2000 ENGINE FLUSH

1. IDENTIFICATION OF PREPARATION AND COMPANY

Chemical Name: TEC-2000 ENGINE FLUSH

Suppliers: TEC-2000 LTD., P.O. Box 285, Hitchin, Herts., SG4 9WQ, U.K.

Emergency Telephones: U.K. 0044 (Ø) 1462-433 660 - 0044 (Ø) 7831 105386 (24hrs)

2. HAZARDS IDENTIFICATION

Main Hazards: Flammable. Irritating to eyes and skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation. In volume, toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of harm to the unborn child. Harmful: may cause lung damage if swallowed.

Other Hazards: Thermal decomposition will give rise to flammable and toxic products. See Section 10. Static discharge: Product can accumulate static charges which can cause an incendiary electrical discharge.

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	EINECS No.	CONTENTS	HEALTH (class)	RISK. (R No.)
Toluene	108-88-3	203-625-9	10-30 %	Xn , Xi, F	11-38-48/20-63-65-67
2-Butoxyethanol	111-76-2	203-905-0	1-5%	Xn, Xi	22/21/22-36/38
Kerosine - Unspecified - Distillates (Petroleum), Hydrotreated Light	64742-47-8	265-149-8	75-95%	Xn, N	65-51/53
Zinc Alkyl Dithiophosphate 1 (contains ZDDP)	n/a	272-028-3	5-10%	Xi, N	38-41-51/53

This preparation contains a component(s) which is a complex mixture and has been assigned Note H in ASL.



Registered office:
Building 15, Gateway 1000,
Stevenage, Hertfordshire, SG1 2FP
Registered in England No. 460 8392

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4. FIRST AID MEASURES

Skin Contact:	There may be irritation and redness at the site of contact. Frequent or prolonged contact may irritate and cause dermatitis. Remove person from source of contact. Wash with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Get medical attention if irritation persists.
Eye Contact:	There may be irritation and redness. Promptly wash eyes with lots of water, while lifting eye lids. Get medical attention if irritation persists.
Ingestion:	There may be irritation of the throat. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS. Get medical attention immediately.
Inhalation:	Vapours or aerosols which may be formed at elevated temperatures or by mechanical action may be irritating to eyes and respiratory tract. In normal usage, this is mosy unlikely. Move exposed person to fresh air at once. In the unlikely event of unconsciousness, a properly trained person can administer 100% oxygen. If breathing stops, perform artificial respiration. Get prompt medical attention.

5. FIRE FIGHTING MEASURES

Extinguishing Media:	Water fog. Dry chemical powder. Alcohol resistant foam. Carbon dioxide. Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.
Exposure Hazards:	In combustion emits toxic fumes. Carbon dioxide / carbon monoxide. Hydrogen sulphide. Sulphur oxides. Nitrogen oxides.
Protection Of Fire-Fighters:	Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.
Special Fire Fighting Procedures	Keep runoff water out of sewers and water sources. Dyke for water control Cool containers exposed to flame with water until well after fire is out.

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6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions:** Eliminate all sources of ignition. In the case of small spillage, absorb fluid with paper towel or similar. Wear suitable protective gloves. Dispose of as per local regulations or incinerate (see section 13) where safe to do so. In the case of large spillage, wear suitable protective equipment if possibility of direct contact exists. Refer to section 8 of SDS for personal protection details. Evacuate non-essential staff, or those not equipped with individual protection apparatus. Turn leaking containers leak-side up to prevent the escape of liquid.
- Environmental Precautions:** Prevent liquid from entering sewers, watercourses or low areas. Contain the spillage using bunding. Do not release to the environment. In the event of release to watercourse, notify relevant authorities in accordance with all applicable regulations.
- Clean-Up Procedures:** Absorb into dry earth or sand. Do not use equipment in clean-up procedure which may produce sparks. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Take all measures to minimise contact with water.
- Small Spillage:** Absorb into paper towel or similar. Wear protective gloves. Do not inhale vapours. Dispose of as per local regulations.

7. HANDLING AND STORAGE

- Handling Requirements:** Material may accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures. This is not expected in normal usage in small quantities.
- Storage Conditions:** Store in cool, well ventilated area. Keep container tightly closed. Maximum recommended storage temperature: 50°C. DO NOT store near an open flame, sources of heat or sources of ignition.
- Suitable Packaging:** Carbon steel, mild steel. Stainless steel. DO NOT USE Natural / butyl rubber. Styrene / butadiene rubber. or Polyethylene. Compatibility with plastic materials can vary; we therefore recommend that compatibility be tested prior to use.

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8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

INGREDIENT NAME	WEL (8 hrs TWA)	WEL (15 min STEL)
Toluene	191mg/m ³	574mg/m ³
2-Butoxyethanol	25ppm	50ppm

Engineering Measures:	Ensure there is sufficient ventilation of the area.
Respiratory Protection:	Not necessary in normal usage, but if required, Half face filtering respirator (EN140). Gas/vapour filter, type A: organic vapours (EN141). Self-contained breathing apparatus must be available in case of emergency.
Hand Protection:	Nitrile gloves. PVC gloves. Gloves should be replaced immediately if signs of degradation are observed.
Eye Protection:	Not necessary in normal usage in small quantities. Safety glasses with side-shields. Ensure eye bath is to hand.
Skin Protection:	Not necessary in normal usage. Otherwise, use protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

State:	Liquid
Colour:	Green
Odour:	Characteristic odour
Evaporation rate:	No data
Solubility in water:	Partial
Boiling point/range°C:	110 (IBP)
Melting point/range°C:	< 0
Flammability limits %:	lower: 0.7 (est) upper: 10 (est)
Flash point°C:	37
Autoflammability°C:	240
Vapour pressure:	No data
Relative density:	0.838 g/mL @ 15°C

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions To Avoid:	Heat.
Materials To Avoid:	Strong oxidising agents. Water.
Haz. Decomp. Products:	Thermal decomposition will give rise to flammable and toxic products. When heated above 65°C, HYDROGEN SULPHIDE (H ₂ S) (Toxic) may be released.

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11. TOXICOLOGICAL INFORMATION

INGREDIENT NAME	IVN RAT	ORL MUS	ORL RAT
Toluene	LD 50 1960 mg/kg	LD50 2 mg/kg	LD 50 6900 mg/kg
2-Butoxyethanol	LD 50 307 mg/kg	LD50 1230 mg/kg	LD 50 470 mg/kg

Chronic Toxicity: Repeated and prolonged overexposure to oil mists may result in droplet formation, inflammation and increased incidence of infection. Frequent or prolonged contact may cause mild skin discomfort. TOLUENE has been shown to affect liver, kidney and central nervous system function through prolonged exposure, and may cause slight foetotoxicity at doses which are maternally toxic.

Routes Of Exposure: Refer to section 4 of SDS for routes of exposure and corresponding symptoms.

12. ECOLOGICAL INFORMATION

Hazardous Ingredients: TOLUENE
DAPHNIA 48H EC50 19.6 mg/l
FISH BLUEGILLS 96H LC50 25mg/l

Mobility: A base oil component of this preparation Floats on water. Expected to partition to sediment and wastewater solids.

Persistence and degradability: Expected to be Not biodegradable.

Bioaccumulative potential: No data available.

Other adverse effects: Expected to be Harmful to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Disposal operations: Ensure compliance with local regulations. This product is not suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers. This product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

Disposal of packaging: Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Ensure compliance with local regulations.

NB: According to European Waste Catalogue, Waste Codes are not product specific, but application specific. The user must be aware that the conditions of use may affect the waste classification after use. Please refer to the List of Wastes (England) Regulations 2005 (SI 2005 No 895) for waste nomenclature.

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14. TRANSPORT INFORMATION

ADR / RID

UN No: 1993
ADR CLASS No: 3
PACKING GROUP: III
CLASSIFICATION CODE: F1
SHIPPING NAME: FLAMMABLE LIQUID, N.O.S. (Toluene; Kerosine – Unspecified - Distillates) (Petroleum), Hydrotreated Light
HAZARD ID No.: 30
LABELLING: 3



IMDG / IMO

UN No: 1993
CLASS: 3
PACKING GROUP: III
EmS: F-E,S-E*
MARINE POLLUTANT: NO
LABELLING: 3

IATA / ICAO

UN No: 1993
CLASS: 3
PACKING GROUP: III
PACKING INSTRUCTIONS: 309(P&CA); 310(CAO)
LABELLING: 3

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15. REGULATORY INFORMATION

Label For Supply:

Harmful



Risk phrases:

R10: Flammable.
R36/38: Irritating to eyes and skin.
R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R63: Possible risk of harm to the unborn child.
R65: Harmful: may cause lung damage if swallowed.
R67: Vapours may cause drowsiness and dizziness.

Safety phrases:

S- 2 Keep out of reach of children
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37: Wear suitable protective clothing and gloves.
S60: This material and its container must be disposed of as hazardous waste.
S61: Avoid release to the environment. Refer to special instructions / safety data sheets.
S62: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Note:

GOVERNING DIRECTIVE: Dangerous Preparations Directive 1999/45/EC, as modified. This classification results from the use of the rules as prescribed by the EU Preparation Directive.

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16. OTHER INFORMATION

Other information:	This safety data sheet is prepared in accordance with EC Directive 2001/58/EC.
Sources Of Information:	Workplace Exposure Limits EH40/2005. The Dictionary of Substances and their Effects (DOSE) (2nd ed.). The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP3). Approved Classification and Labelling Guide (5th ed.). The compilation of safety data sheets ACoP (3rd ed.). Approved Supply List (8th ed.). Approved Carriage List (3rd ed.). European Council Directive 1999/13/EC ("Solvents Emissions Directive"). The List of Wastes (England) Regulations 2005 (SI 2005 No 895). Supplier information
Revision Summary: (New Issue):	Risk phrases used in section 3 with reference to raw ingredients: R11: Highly flammable. R38: Irritating to skin. R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation. R63: Possible risk of harm to the unborn child. R65: Harmful: may cause lung damage if swallowed. R67: Vapours may cause drowsiness and dizziness. R20/21/22: Harmful by inhalation, in contact with skin and if swallowed. R36/38: Irritating to eyes and skin. R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R41: Risk of serious damage to eyes.
Legal Disclaimer:	The information provided relates only to the product or material specified and does not apply if used in combination with other materials. The data sheet gives information to the best of TEC-2000's knowledge and awareness as of its issue date. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to be satisfied that the information provided is suitable and complete enough for this material's particular use.
Issued By:	M. L. F. KNOWLES.
Revision Date (dd-mm-yyyy):	14-10-2011
Revision No./ Replaces SDS Issued:	10/05-12-2005
Total Pages:	8

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