



TEC-2000 LTD.

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EC - SAFETY DATA SHEET

TEC-2000 ANTI-FREEZE BOOSTER

1. IDENTIFICATION OF PREPARATION AND COMPANY

CHEMICAL NAME: TEC-2000 ANTI-FREEZE BOOSTER

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

EMERGENCY TELEPHONES: **U.K.** 01462-433 660 - **07831 105386 (24hrs)**

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	CONTENTS	HEALTH (class)	RISK (R. No.)
ETHANEDIOL	203-473-3	30-35%	Xn	22
2-ETHYLHEXANOIC ACID, POTTASIAM SALT	205-743-6	45-50%	Xn	63
BENZOTRIAZOLE DERIVATIVE	249-596-6	2%	Xn	-

CHEMICAL NATURE Ethyleneglycol with inhibitors

3. HAZARDS IDENTIFICATION

Avise on critical hazards to man and environment.

R22 Harmful if swallowed.

R63 Possible risk of harm to the unborn child.



Registered office:
The Barn, Warren Court,
114 High Street, Stevenage Old Town,
Hertfordshire, SG1 3DW.
Registered in England No. 460 8392

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4. FIRST AID MEASURES

GENERAL:	Remove contaminated clothing.
EYES:	Wash affected eyes for at least 15 minutes under running water with eyelids held open.
SKIN:	On skin contact wash thoroughly with soap water.
INHALATION:	If difficulties occur after vapour / aerosol has been inhaled: fresh air, summon physician.
INGESTION:	On ingestion immediately rinse mouth and then drink plenty of water, summon physician.
NOTE TO PHYSICIAN:	Symptomatic treatment (decontamination, vital functions), possibly administration of: ethanol.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:	Water spray, dry extinguishing media, alcohol-resistant foam, carbon dioxide (CO ₂).
SPECIAL PROTECTIVE EQUIPMENT:	In case of fire, wear a self contained breathing apparatus.
HAZARDOUS DECOMPOSITION PRODUCTS:	Gases or vapours: The degree of risk is governed by the burning substance and the fire conditions.
FURTHER INFORMATION:	Contaminated extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:	Pick up immediately as product renders floors slippery. Hand protection (PVC).
ENVIRONMENTAL PRECAUTIONS:	Do not discharge product into natural waters without pre-treatment (biological treatment plant).
SPILL CLEANUP METHODS:	Contain with absorbent material and dispose.

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7. HANDLING AND STORAGE

USAGE PRECAUTIONS:	Ensure thorough ventilation of stores and work areas.
PRECAUTION AGAINST FIRE & EXPLOSION:	Electrical equipment must be suitable for Temperature Class T2 (VDE 0165) (Germany).
STORAGE PRECAUTIONS:	The product is hygroscopic. Containers should be stored tightly sealed in a dry place. Storage in galvanized containers is not recommended.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

ADDITIONAL INFORMATION ON THE LAY-OUT OF TECHNICAL PLANT:	(see section 7)
ETHYLENEGLYCOL	Observe the appropriate MAK value (Germany) MAK: $10.0 \text{ ml} / \text{m}^3 = 16.0 \text{ mg} / \text{m}^3$ (Germany) Top limit category 1 9TRGS 900 Germany) see section 2.3 of TRGS 9100 (D) Compounds of: molybdenum (soluble) approx. 2% Is to be observed: Additional information see MAK list.
RESPIRATORY PROTECTION:	Avoid breathing vapour / aerosol.
HAND PROTECTION:	Use protective gloves (PVC).
EYE PROTECTION:	Wear goggles.
OTHER PROTECTION:	The usual precautions for the handling of chemicals must be observed.

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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Liquid.
COLOUR:	According to specification.
ODOUR:	Product specific.
FLASH POINT (°C) :	> 100° C
BOILING POINT / BOILING RANGE:	> 110° C (ASTM D 1120)
SOLIDIFICATION TEMPERATURE:	<-18° C (DIN - ISO 3016)
EXPLOSION LIMITS:	Lower 3 Vol. % Upper 15 Vol. %
IGNITION TEMPERATURE:	> 200° C (DIN 51794)
VAPOUR PRESSURE:	(20° C) approx. 2 mbar
DENSITY:	20° C) approx. 1.13 g/cm ³ (DIN 51757)
SOLUBILITY IN WATER:	Unlimited.
SOLUBILITY IN OTHER SOLVENTS:	Soluble in polar solvents.
	pH value (20° C) 9.7
VISCOSITY:	(20° C) 40 - 50 mm ² /s

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID:	Protect against moisture.
SUBSTANCES TO AVOID:	Powerful oxidising agent.
HAZARDOUS REACTIONS:	None provided product is correctly processed.
HAZARDOUS DECOMPOSITION PRODUCTS:	None provided product is correctly processed.

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11. TOXICOLOGICAL INFORMATION

The statements are based on the properties of the individual components.

ACUTE TOXOCITY:

LD50 / oral / rat: > 2000mg / kg:

Primary skin irritation / rabbit / OECD 404: non irritant. Primary mucous membrane irritation / rabbits' eyes / OECD 405 non irritant.

MEDICAL SYMPTOMS:

Ethanediol:

Lethal dose if swallowed approx. 1.5g / kg body weight. Lethal dose approx. 90-110 g for adults, and correspondingly less for children. Smaller doses can result in: consciousness is affected, kidney damage, damage to the central nervous system.

ADDITIONAL INFORMATION:

Ethanediol:

Skin resorption hazard. Some studies in mice and rats have shown a harmful effect on the foetus after oral injection of high doses. These effects did not occur in a study on rabbits. The whole of the information available provides on indication of a carcinogenic effect.

Ethylhexanoic acid:

There are indications of developmental toxic effects from reproduction studies.

12. ECOLOGICAL INFORMATION

The statements are based on the properties of the individual components.

ELIMINATION INFORMATION:

TEST METHOD:

OECD 302 B

METHOD OF ANALYSIS:

DOC reduction

DEGREE OF ELIMINATION:

> 70%

EVALUATION:

Easy to eliminate

BEHAVIOUR AND

ENVIRONMENTAL FATE:

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

ECOTOXIC EFFECTS:

TOXICITY TO ALGAE:

EC50 (72 h):

>100mg / l

TOXICITY TO DAPHNIDS (ACUTE):

EC50 (48 h):

>100mg / l

TOXICITY TO FISH:

LC50 (96 h):

>100mg / l, *Leuciscus idus*

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13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:

Must be disposed of by special means, e.g. suitable incineration, in accordance with local regulations. Uncontaminated packs can be re-used. Packs that cannot be cleaned should be disposed of in the same manner as the contents.

14. TRANSPORT INFORMATION.

Not classified as hazardous under transport regulations.

15. REGULATORY INFORMATION

LABEL FOR SUPPLY:

RISK PHRASES:



Harmful if swallowed.

R-63 Possible risk of harm to the unborn child.

SAFETY PHRASES:

S- 2 Keep out of reach of children.
S-24 / 25 Avoid contact with skin and eyes.
S-36 / 37 Wear suitable protective clothing and gloves.
S-46 If swallowed, seek medical advice immediately and show this container or label.

NATIONAL LEGISLATION /

REGULATIONS:

German "Flammable Liquids" classification (VbF): none.
Water Hazard class: 1VwVws (Germany) of 17.5.1999, Annex 4

16. OTHER INFORMATION

INFORMATION SOURCES:

The Information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.

ISSUED BY:

M. L.. F. KNOWLES.

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