

## **MATERIAL SAFETY DATA SHEET**

**Manufacturer:** Turbo-K Ltd  
PO Box 232  
Hatfield  
AL10 8JH

**Contact:** Mr Ken Winter (Managing Director)  
**Telephone:** #44 (0) 1727 825734  
**E-Mail(Sales/Admin):** kw@midlandchem.com  
**E-Mail(Technical):** lachdennis@havnet.com  
**Emergency Contact:** Mr Sunil Pathak  
**Emergency Tel:** #44 (0) 1827 722911(UK Office hours only)

### **1. TRADE NAME**

Turbo-K (Super Concentrate 1:19)

### **2. HAZARDS IDENTIFICATION.**

Irriating to eyes cause skin irritation  
Harmful if swallowed

### **3. COMPOSITION/INFORMATION ON INGREDIENTS.**

#### **3i. Chemical composition:**

Glycol Ether	30 - 40%
Nonionic & Amphoteric Surfactant	60 - 75%
Demineralised Water	<10%

#### **3ii. Risk Phrases:**

R36 - Irritating to eyes  
R22 - Harmful if swallowed

#### **3iii. Classification/Symbol:**

Xi - Irritant

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<b>Exposure route</b>	<b>symptom</b>	<b>treatment</b>
<b>Eyes</b>	<b>Irritation</b>	<b>Wash with plenty of water. If Irritation persists, seek medical advice.</b>
<b>Skin</b>	<b>Irritation</b>	<b>Wash with water. An emollient cream may be used if the skin is degreased</b>
<b>Inhalation</b>	<b>n/a</b>	<b>n/a</b>
<b>Ingestion</b>	<b>Discomfort</b>	<b>Do not induce vomiting. Drink plenty of water and seek medical advice.</b>

**5. FIRE FIGHTING MEASURES.**

<b>Specific Hazards</b>	<b>Carbon monoxide &amp; oxides of nitrogen can occur if incomplete combustion occurs.</b>
<b>Extinguishing Media (Small fires)</b>	<b>Dry chemical powder, carbon dioxide, alcohol resistant foam, water spray or fog, sand or earth.</b>
<b>(Large Fires)</b>	<b>Alcohol resistant foam, water spray or fog</b>
<b>Unsuitable extinguishing media</b>	<b>None</b>
<b>Protective Equipment</b>	<b>Full protective clothing and self contained breathing apparatus.</b>

**6. ACCIDENTAL RELEASE MEASURES.**

<b>Safety Precautions</b>	<b>Avoid contact with eyes and skin.</b>
<b>Environmental Procedure</b>	<b>No special requirement</b>
<b>Clean-up Procedure</b>	<b>Dilute to waste with water</b>

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### **7. HANDLING AND STORAGE.**

Store in Closed containers above 5 degrees Centigrade.

7.1 Handle in accordance with personal protection procedures outlined under section 8.2.1 below.

Store in closed containers above 5E Centigrade.

Turbo-K SuperConcentrate is not damaged by freezing & thawing.

7.2 If Turbo-K SuperConcentrate has been stored at temperatures of less than 5EC, some layering may have occurred & at sub-zero temperatures ice crystals may have formed.

Before use, return the material to a minimum of 5EC & make homogeneous by thoroughly stirring the liquid.

7.3 Turbo-K SuperConcentrate is suitable for on-line & off-line washing of Gas Turbine Compressors when diluted 1:19 with water in accordance with our instructions & engine manufacturers guidelines.

**NB.** Where used for On-line cleaning, demineralised water must be used at all times.

### **8. EXPOSURE CONTROL / PERSONAL PROTECTION.**

8.1 Turbo-K SuperConcentrate is safe to handle and no Exposure Limit Value applies

8.2.1 Normal hygiene is required for standard use as a compressor cleaner. If the possibility of regular contact could give rise to degreasing action or development of an allergic reaction, the use of gloves & goggles should be considered.

Goggles and gloves are recommended if bulk quantities are being handled on a regular basis.

8.2.2 The Surfactants contained in Turbo-K SuperConcentrate comply with or exceed biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this are held at the disposal of the competent authorities of the Member States and will be made available to them at their request.

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**9. PHYSICAL AND CHEMICAL PROPERTIES.**

9.1	Appearance:	Dark straw coloured liquid
	Odour:	Typical Glycol Ether
9.2	pH (neat):	7.3
	pH (1:19 Soln in demin water):	7.3
	Sp. Gravity:	1.10 <u>±</u> 0.1
	Solubility:	Soluble in Water
	Flash Point	> 100 degrees Centigrade.

**10. STABILITY & REACTIVITY.**

This is a stable formulation

10.1 Conditions to avoid: None

**11. TOXICOLOGICAL PROPERTIES.**

This product when used in accordance with instructions presents low chemical hazards. Eye contact may cause soreness, and if not treated promptly, could lead to eye damage.  
Ingestion would cause discomfort.

No Carcinogenic, mutagenic or teratogenic effects have been reported nor are expected from Turbo-K SuperConcentrate(1:19) and/nor its constituents.

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### 12. ECOLOGICAL INFORMATION.

<b>Basis of assessment</b>	Information supplied by raw material producers, & separate assessments by Independent certified laboratories.	
<b>Mobility</b>	Dissolves in water. If product enters soil, it will be mobile and could contaminate ground water.	
<b>Persistence/ degradability</b>	All components are fully biodegradable	
<b>Bioaccumulation</b>	Unlikely to occur due to metabolism and excretion.	
<b>Acute Toxicity- fish</b> ( <i>Scophthalmus maximus</i> )	<b>96 Hour LC<sub>50</sub></b>	<b>26.9mg/litre</b>
<b>Algae</b> ( <i>Skeletonema costatum</i> )	<b>72 Hour ErC<sub>50</sub></b>	<b>0.25mg/litre</b>
<b>-Crustacea</b> ( <i>Acartia Tonsa</i> )	<b>48 Hour LC<sub>50</sub></b>	<b>6.1mg/litre</b>
<b>Sewage treatment</b>	Dilute with water before disposal. No special treatment is required as the material is readily degraded in sewage treatment plants.	

**N.B. : TURBO-K does not contain any alkyl phenol ethoxylates, nor any other known oestrogenic, carcinogenic, teratogenic or mutagenic compounds.**

### 13. DISPOSAL CONSIDERATIONS.

<b>Waste disposal:</b>	Recover if possible. Otherwise dispose to licensed Waste contractor or incinerate.
<b>Product disposal:</b>	Recover if possible. Otherwise dispose to licensed Waste contractor or incinerate.
<b>Container disposal:</b>	Recover if possible. Otherwise dispose to licensed Waste contractor or incinerate.

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### **14. TRANSPORT INFORMATION.**

**UN No : None Assigned**

**Not dangerous for conveyance under:-**

**UK road  
RID-ADR  
IMO  
MARPOL  
ICAO**

**Special precautions : NONE**

### **15. REGULATORY INFORMATION.**

**Symbol : St Andrews Cross**

**Risk phrases :R22. Harmful if swallowed.**

**R36. Irritating to eyes**

**Safety phrases :S26. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.**

**S46. If swallowed seek medical advice immediately and show this container or label.**

### **16. OTHER INFORMATION.**

**Use only as directed:--**

**diluted 1:19 with water as a Gas Turbine Compressor Cleaner.**

### **LEGAL DISCLAIMER.**

**This safety data sheet is distributed solely for the purpose of the Health and Safety at Work Act 1974 & Regulation 6 of CHIP2: Included under this heading is Article 27 of the Dangerous Substances Directive (67/548/EEC) as amended by the Seventh Amendment (92/32/EEC), Article 10 of Directive 88/379/EEC and the Safety Data Sheets Directive (91/155/EEC, as amended by Directive (93/112/EC). It does not constitute any warranty or guarantee as to the quality, properties, condition or otherwise of the product. It has been prepared from the best knowledge available to the manufacturer and neither the manufacturer nor the distributor shall be liable for any insufficiency or inaccuracy in such information in any case whatsoever.**