

SAFETY DATA SHEET

(in accordance with Directives 67/548/EEC & 1999/45/EC as adapted to Regulation (EC) No. 1907 / 2006 –REACH –updates will be issued on request only)

A world leader in gas turbine chemicals

TURBOTECT 2020 AMB

1 IDENTIFICATION OF SUBSTANCE / PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name: **TURBOTECT 2020 AMB**

Use: Gas turbine compressor washing detergent for industrial use only.

Supplier: Turbotect Limited
CH-5401 Baden
Switzerland

Tel: 41 (0)56 200 50 20; Fax: 41 (0)56 200 50 22
E-mail / Web: turbotect@turbotect.com; www.turbotect.com
Originator of the SDS: johncope@pcm94.fsnet.co.uk
Emergency Tel: 41 (0) 56 200 50 20 (office hours)

2 HAZARDS IDENTIFICATION

This preparation is classified as Dangerous according to Directive 1999/45/EC:

Xi Irritant: Irritating to eyes and skin.

This mixture is classified as Hazardous according to Directive 67/548/EEC (CLP & GHS) Hazard Class & Category:

Eye Irritant 2 & Skin Irritant 2. Warning. **H319** Causes serious eye irritation
& **H315** Causes skin irritation.

GHS Precautionary Statements: **P264, P280, P302 + P352, P305+P351 +P338.**



3 COMPOSITION / INFORMATION ON INGREDIENTS

Proprietary mixture of non-ionic surfactant and emulsifier in deionised water solution.

Hazardous ingredient	CAS No.	EINECS No.	Conc. %	Symbols	R Phrases
Ethoxylated fatty alcohols	n/a	n/a	<20	Xn	R 22, 36
2-(2-butoxyethoxy)ethanol	000112-34-5	203-961-6	<20	Xi	R 36
3-butoxypropan-2-ol	005131-66-8	225-878-4	<20	Xi	R 36/38
Ethoxylated branched oxoalcohols	n/a	n/a	<10	Xi	R 41

4 FIRST-AID MEASURES

Contact with eyes: Wash immediately with eyewash solution or clean water, holding eyelids apart, for at least 10 minutes. Get prompt medical attention if irritation persists.

Contact with skin: Remove contaminated clothing. Wash exposed areas with mild soap and water. If irritation persists, seek medical attention.

Ingestion: Wash mouth with water and give 0.2 - 0.3 litre (half pint) water to drink. If symptoms appear seek medical advice and show this safety data sheet or hazard label.

Inhalation: Not expected to present a significant inhalation hazard under conditions of normal use.

Other information: Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. After adequate first aid, no further treatment is required unless symptoms reappear.

5 FIRE-FIGHTING MEASURES

In case of fire, use foam, carbon dioxide or dry agent. Use water spray / mist for cooling containers involved in a fire. Fire-fighters should wear full protective gear including S.C.B.A. sets with full face shields. T-2020 has no flash point as obtained by standard test methods. However, if heated sufficiently, it will produce flammable vapours. Always drain and flush systems containing T-2020 with water before welding or other maintenance.

6 ACCIDENTAL RELEASE MEASURES

Dike and contain spill. Do not allow spill to enter drains, sewers or waterways, ground, plants and vegetation. Recover free liquid if possible. Absorb spillage with inert material, floor absorbent, earth or sand and collect into appropriate containers. Dispose of in accordance with local regulations. Comply with all spill notification regulations. The appropriate regulatory body must be alerted to spillages or uncontrolled discharges to sewers, streams or other bodies of water.

7.1 HANDLING

May present slip hazard if spilt. Avoid contact with skin and eyes. Otherwise, no particular precautions are required in normal use. Practice normal industrial hygiene. Provide adequate ventilation. Exposure levels in the workplace must be controlled in compliance with Occupational Exposure Limit where established.

7.2 STORAGE

Keep containers closed to prevent contamination when not in use. Do not store near heat, open flames or strong oxidants. Store containers in an adequately ventilated area, in the shade (under a roof), and prevent direct exposure to weather (rain, storm, etc.). Do not store the product at temperatures below its freezing point.

8.1 EXPOSURE LIMIT VALUES

None determined

8.2 EXPOSURE CONTROLS

Wear suitable protective clothing, including eye/face protection and gloves.

If working in confined areas, or if heavy misting or high vapour concentrations are likely, wear approved breathing apparatus.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, blue, low viscosity liquid
Odour:	Characteristic sweet
Change in physical state:	Boiling point: approx. 100°C (212°F)
	Pour point: 0°C (32°F)
Flash point:	>100°C (>212°F)
Auto-ignition temperature:	not determined
Flammability Limits in Air:	LEL: n/a
(% vol in air)	UEL: n/a
Vapour pressure at 20°C (68°F) (non-water fraction):	<0.1 mm Hg
Viscosity (ASTM D 445) @ 27°C (80°F)	6 mPa.s (cSt)
Solubility in water:	Complete
pH Value	7-7.5
Relative density at 20°C (68°F):	0.997 g/cm ³ (8.32 lb/US Gal)

The above data are typical values and do not constitute a specification.

10 STABILITY AND REACTIVITY

Hazardous reactions: Avoid strong oxidising agents.
Hazardous decomposition products: Product stable under normal conditions of storage, handling and use.

11 TOXICOLOGICAL INFORMATION

Acute effects:

Eye contact: May cause minor eye irritation.
Ingestion: May cause nausea, vomiting and diarrhoea.
Skin contact: May cause drying of the skin and contact dermatitis.
Inhalation: No significant signs or symptoms indicative of any health hazard are expected.

Chronic effects: No experimental data are available on this preparation. Based on chronic toxicological information on its components it is unlikely to pose a carcinogenic, mutagenic or reproductive toxicity risk to humans if exposure is maintained at or below occupational limits, where established.

12 ECOLOGICAL INFORMATION

Product tested according to EPA 40 CFR 796.3100 "Aerobic Aquatic Biodegradation".

Based on dissolved organic carbon (DOC) analysis TURBOTECT 2020 AMB is 90% Biodegradable in 28 days. The substance will undergo rapid and ultimate biodegradation in aerobic aquatic environment, also known as "ready biodegradability".

Product also tested according to OECD 301-F "Ready Biodegradability - Evaluation of the Aerobic Biodegradability in an Aqueous Medium, Manometric Respirometry Test".

Based on dissolved organic carbon (DOC) analysis TURBOTECT 2020 is 99% biodegradable. TURBOTECT 2020 AMB is expected to degrade rapidly in the aquatic environment.

TURBOTECT 2020 AMB is not a "VOC" (Volatile Organic Compound), the vapor pressure (calculated) for the non-water components is 0.05 mm Hg / 20°C.

TURBOTECT 2020 AMB has a low order of acute toxicity to aquatic species:

Fish Acute Toxicity Test as per EPA CFR 40 Part 797.1300

Fathead Minnows (*Pimephales promelas*) : 96 hours LC₅₀ : 40 mg/ Litre

Daphnid Acute Toxicity Test as per EPA CFR 40 Part 797.1400

Daphnia Magna (Cladocerans) : 48 hours LC₅₀: 30 mg/ Litre

Prevent product from entering into ground and surface water.

13 DISPOSAL CONSIDERATIONS

Empty containers should be drained, properly bunged and returned to a drum/container re-conditioner. Do not reuse empty containers without commercial cleaning or reconditioning. Dispose of product by suitable incineration in accordance with local regulations.
See Section 6. "ACCIDENTAL RELEASE MEASURES"


14.1 TRANSPORT REGULATIONS

UN Dangerous Goods	none	Packing Group:
Road/Rail (ADR/RID)	Hazard Class: Classification Code: Tremcard:	Classification: HIN: Danger sign:
Sea (IMDG)	Hazard Class: IMDG Page No.:	Marine Pollutant: no Danger sign:
Air (ICAO/IATA)	Hazard Class:	

14.2 TRANSPORT INFORMATION

Not Dangerous Goods according to international transport regulations.

15 REGULATORY INFORMATION

Danger Symbols:	Xi Irritant	
Risk phrases:	R36/38. Irritating to eyes and skin.	
Safety phrases:	S23. Do not breathe vapour. S26. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39. Wear suitable protective clothing, gloves and eye / face protection.	

16 OTHER INFORMATION

Regulatory inventory compliance: AUSTRALIAN INVENTORY (AICS), CANADA INVENTORY (DSL), CHINA INVENTORY (IECS), EC INVENTORY (EINECS/ELINCS), JAPAN INVENTORY (ENCS), KOREA INVENTORY (ECL), PHILIPPINE INVENTORY (PICCS), US INVENTORY (TSCA)

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