

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name:** HYDROTOUGH RI**Article number:** TB2325**1.2 Relevant identified uses of the substance or mixture and uses advised against****Product category:** Industrial. For professional use only.**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:** TYGRIS Industrial
Unit 31, Kyle Road Industrial Estate
Irvine
Ayrshire
KA12 8LE
Tel +44 (0) 1294 311 066
Fax +44 (0) 1294 277 115
Email technical@tygrisindustrial.com**Further information obtainable from:** Technical Department**1.4 Emergency telephone number:** Tel +44 (0) 1294 311 066

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Physical hazards: Flammable liquids, Category 2 H225
Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 2 H319

2.2. Label elements

Hazard statements: H225: Highly flammable liquid and vapour
H315: Causes skin irritation
H319: Causes serious eye irritation

Hazard pictograms: GHS02: Flame
GHS07: Exclamation mark



Signal word: Danger

Precautionary statements: P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233: Keep container tightly closed
P240: Ground/bond container and receiving equipment
P241: Use explosion-proof electrical/ventilating/lighting/... equipment
P264: Wash ... thoroughly after handling
P280: Wear protective gloves/protective clothing/eye protection/face protection P302 +P352: IF ON SKIN: Wash with plenty of water/...
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P321: Specific treatment (see ... on this label)
P332+P313: If skin irritation occurs: Get medical advice/attention
P337+P313: If eye irritation persists: Get medical advice/attention
P362+P364: Take off contaminated clothing and wash it before reuse
P370+P378: In case of fire: Use ... to extinguish
P403+P235: Store in a well-ventilated place. Keep cool
P501: Dispose of contents/container to ..

2.3. Other hazards

SECTION 3: Composition/information on ingredients
3.2. Mixtures
Hazardous ingredients:
CITRIC ACID

EC	CAS	Index number	EEC Classification	CLP Classification	Percent
201-069-1	77-92-9	-	Xi; R36	Eye Irrit. 2, H319	1 - 10%

**ISOPROPANOL
REACH-no 01- 2119457558-25**

200-661-7	67-63-0	603-117-00-0	F; R11 Xi; R36 R67	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	0.54 - 8.3%
-----------	---------	--------------	--------------------------	---	----------------

2-AMINOETHANOL, ETHANOLAMINE

205-483-3	141-43-5	603-030-00-8	Xn; R20/21/22 C; R34	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation: dust, mist), H332 Skin Corr. 1B, H314 STOT SE 3, H335	0.9 - 4.5%
-----------	----------	--------------	-------------------------	--	---------------

RESAQUEST ECO CONC

-	-	-	-	-	1 - 3%
---	---	---	---	---	--------

1-METHOXY-2-PROPANOL, MONOPROPYLENE GLYCOL METHYL ETHER

203-539-1	107-98-2	603-064-00-3	R10 R67	Flam. Liq. 3, H226 STOT SE 3, H336	>= 0.995%
-----------	----------	--------------	------------	---------------------------------------	--------------

METHYL-1H-BENZOTRIAZOLE

249-596-6	29385-43-1	-	Xn; R22 Xi; R36 R52/53	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 3, H412	0.01 - 0.8%
-----------	------------	---	------------------------------	--	----------------

2-METHOXYPROPANOL

216-455-5	1589-47-5	603-106-00-0	R10 Repr.Cat.2; R61 Xi; R41 Xi; R37/38	Flam. Liq. 3, H226 Repr. 1B, H360D STOT SE 3, H335 Skin Irrit. 2, H315 Eye Dam. 1, H318	< 0.015%
-----------	-----------	--------------	---	---	-------------

OXETHYLATED COCONUT FATTY ACID AMINE

-	61791-14-8	-	-	-	-
---	------------	---	---	---	---

FATTY ALCOHOL ALKOXYLATE

-	-	-	-	-	-
---	---	---	---	---	---

HT10

-	9003-11-6	-	-	-	-
---	-----------	---	---	---	---

Specific concentration limits:

2-AMINOETHANOL, ETHANOLAMINE

EC	CAS	Index number	Specific concentration limits: DSD/DPD	Specific concentration limits: CLP calculator
205-483-3	141-43-5	603-030-00-8	(5 =< C < 10) Xi;R36/37/38 (C >= 10) C;R34	(C >= 5) STOT SE 3, H335

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

SECTION 4: First aid measures
4.1. Description of first aid measures

Skin contact:	Wash with plenty of soap and water. Remove contaminated clothing. Drench affected area with water for at least 15 minutes. If irritation develops, obtain medical attention.
Eye contact:	Immediately flush eyes thoroughly with water for at least 15 minutes. If symptoms persist, call a physician.
Ingestion:	Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical attention.
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing.

4.2. Most important symptoms and effects, both acute and delayed
4.3. Indication of any immediate medical attention and special treatment needed
SECTION 5: Firefighting measures
5.1 Extinguishing media

Suitable extinguishing media: Foam. Dry powder. Carbon dioxide. Water spray.

5.2. Special hazards arising from the substance or mixture
5.3. Advice for fire-fighters

Firefighting instructions:	Exercise caution when fighting any chemical fire. Keep up-wind.
Protection during firefighting:	Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Evacuate area. Use protective clothing. Try to stop release.

6.2. Environmental precautions

Environmental precautions: Avoid release to the environment. Avoid subsoil penetration. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions for safe handling: Handle and use in accordance with good occupational hygiene and safety practice. Use personal protective equipment as required. Avoid spilling, skin and eye contact.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in closed original container at temperatures between 0°C and 35°C. Keep container tightly closed.

7.3. Specific end use(s)

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Workplace exposure limits:

1-METHOXY-2-PROPANOL, MONOPROPYLENE GLYCOL METHYL ETHER (107-98-2)

	Long-term exposure limit (8-hour TWA)	Short-term exposure limit (15-minute)
EU	IOELV 100 ppm, 375 mg/m ³	-
UK	WEL 100 ppm, 375 mg/m ³	WEL 150 ppm, 375 mg/m ³

2-AMINOETHANOL, ETHANOLAMINE (141-43-5)

EU	IOELV 1 ppm, 2.5 mg/m ³	IOELV 3 ppm, 7.6 mg/m ³
UK	WEL 1 ppm, 2.5 mg/m ³	WEL 3 ppm, 7.6 mg/m ³

ISOPROPANOL (67-63-0)

EU	IOELV 400 ppm, 999 mg/m ³	IOELV 500 ppm, 1250 mg/m ³
----	--------------------------------------	---------------------------------------

WEL = Workplace Exposure Limits

8.2. Exposure controls
Hand protection: Wear chemically resistant protective gloves. Polyvinylchloride (PVC). Tightly fitting safety goggles.

Eye protection: Have an eye-bath to hand.

Skin and body protection: PVC overalls.

Respiratory protection: Keep self contained breathing apparatus readily available for emergency use.

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

State:	Liquid
Appearance:	Dark brown liquid
Odour:	Detergent like
pH:	8 - 8.5
Boiling point:	100 °C
Relative density:	~ 1.01
Solubility:	Soluble

9.2. Other information

SECTION 10: Stability and reactivity
10.1. Reactivity
10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions
10.4. Conditions to avoid
10.5. Incompatible materials

Incompatible materials: Strong Oxidizing Agents.

10.6. Hazardous decomposition products
SECTION 11: Toxicological information
11.1. Information on toxicological effects
Hazardous ingredients:

2-AMINOETHANOL, ETHANOLAMINE (141-43-5)

ORAL	RAT	LD50	200 - 2000	mg/kg
DERMAL	RBT	LD50	400 - 2000	mg/kg
INHALATION	RAT	LD50	1 - 5	mg/l

HT10 (9003-11-6)

ORAL	RAT	LD50	≥ 2000	mg/kg
------	-----	------	--------	-------

ISOPROPANOL (67-63-0)

ORAL	RAT	LD50	4700	mg/kg
ORAL	RBT	LD50	≥ 2000	mg/kg
ORAL	RAT	LD50	46.5	mg/kg

Skin contact: May cause dermatitis by skin contact. pH: 8 - 8.5

Eye contact: Irritation to eyes. Risk of serious damage to eyes. pH: 8 - 8.5

SECTION 12: Ecological information
12.1. Toxicity
Hazardous ingredients:

2-AMINOETHANOL, ETHANOLAMINE (141-43-5)

FISHES 1	96H LC50	> 100	mg/l
OTHER AQUATIC ORGANISMS 1	96H LC50	> 10 - 100	mg/l
DAPHNIA 1	48H EC50	> 10 - 100	mg/l

2-AMINOETHANOL, ETHANOLAMINE (141-43-5)

FISHES 1	96H LC50	≥ 100	mg/l
----------	----------	-------	------

2-AMINOETHANOL, ETHANOLAMINE (141-43-5)

FISHES 1	48H LC50	≥ 100	mg/l
OTHER AQUATIC ORGANISMS 1	72H LC50	≥ 100	mg/l
DAPHNIA 1	48H EC50	≥ 100	mg/l

12.2. Persistence and degradability
Persistence and degradability: Biodegradable

12.3. Bioaccumulative potential
Bioaccumulative potential: The product does not contain any substances expected to be bioaccumulating.

12.4. Mobility in soil
12.5. Results of PBT and vPvB assessment
12.6. Other adverse effects
SECTION 13: Disposal considerations
13.1. Waste treatment methods
Waste treatment methods: Dispose of waste and residues in accordance with local and national requirements. In accordance with local authority regulations, take to special waste incineration or chemical/physical treatment plant.

SECTION 14: Transport information

14.1. UN number

UN Number (ADR): 2491

14.2 UN proper shipping name

Proper Shipping Name (ADR): ISOPROPANOL (ISOPROPYL ALCOHOL)

Transport document description (ADR): UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II, (D/E)

14.3. Transport hazard class(es)

Transport class (ADR): 3

Danger labels (ADR): 3



14.4. Packing group

Packing group (ADR): II

14.5 Environmental hazards

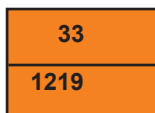
Environmentally hazardous: No

Marine pollutant: No

14.6 Special precautions for user

Overland transport:

Classification code (ADR) : F1
 Special provision (ADR) : 601
 Limited quantities (ADR) : 1L
 Excepted quantities (ADR) : E2
 Packing instructions (ADR) : P001, IBC02, R001
 Mixed packing provisions (ADR) : MP19
 Mixed Portable tank and bulk container instructions (ADR) : T4 Mixed Portable tank and bulk container special provisions (ADR) : TP1 ADR tank codes (ADR) : LGBF
 Vehicle for tank carriage : FL
 Transport category (ADR) : 2
 Special provisions for carriage - Operation (ADR) : S2, S20
 Tunnel restriction code (ADR) : D/E
 EAC code : •2YE
 Orange plates :



SECTION 15: Regulatory information

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

EU-Regulations:

Contains no substances with Annex XVII restrictions
 Contains no REACH candidate substance
 Contains no REACH Annex XIV substances.

SECTION 16: Other information

Other information:	This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.
Phrases used in s.2 and s.3:	<p>Acute Tox. 4 (Dermal): Acute toxicity (dermal), Category 4 Acute Tox. 4 (Inhalation:dust,mist): Acute toxicity (inhalation:dust,mist) Category 4 Acute Tox. 4 (Oral): Acute toxicity (oral), Category 4 Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3 Eye Dam. 1: Serious eye damage/eye irritation, Category 1 Eye Irrit. 2: Serious eye damage/eye irritation, Category 2 Flam. Liq. 2: Flammable liquids, Category 2 Flam. Liq. 3: Flammable liquids, Category 3 Repr. 1B: Reproductive toxicity, Category 1B Skin Corr. 1B: Skin corrosion/irritation, Category 1B Skin Irrit. 2: Skin corrosion/irritation, Category 2 STOT SE 3: Specific target organ toxicity — Single exposure, Category 3, Narcosis STOT SE 3: Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation H225: Highly flammable liquid and vapour H226: Flammable liquid and vapour H302: Harmful if swallowed H312: Harmful in contact with skin H314: Causes severe skin burns and eye damage H315: Causes skin irritation H318: Causes serious eye damage H319: Causes serious eye irritation H332: Harmful if inhaled H335: May cause respiratory irritation H336: May cause drowsiness or dizziness H360D: May damage the unborn child H412: Harmful to aquatic life with long lasting effects R10: Flammable R11: Highly flammable R20/21/22: Harmful by inhalation, in contact with skin and if swallowed R22: Harmful if swallowed R34: Causes burns R36: Irritating to eyes R37/38: Irritating to respiratory system and skin R41: Risk of serious damage to eyes R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment R61: May cause harm to the unborn child R67: Vapours may cause drowsiness and dizziness C: Corrosive F: Highly flammable Xi: Irritant Xn: Harmful</p>
Legal disclaimer	The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.