

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Date first issue: 16/08/2010 Review date: 05/01/2021 Supersedes version of: 17/03/2015 Version: 6.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Product name : TFR AND POLISH

Product code : 316 Type of product : Detergent Product group : Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

: Industrial Industrial/Professional use spec

For professional use only

Use of the substance/mixture : Cleaning/washing agents and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Clover Chemicals Ltd Clover House Macclesfield Road SK23 7DQ Whaley Bridge - United Kingdom T 01663 733114 - F 01663 733115

info@cloverchemicals.com - www.cloverchemicals.com

1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Corr. 1 H314 H412 Aquatic Chronic 3

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

GHS05

CLP Signal word : Danger

: Sodium hydroxide; Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, Contains

chlorides; Isotridecanol, ethoxylated; Fatty alcohol ethoxylate

Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage.

H412 - Harmful to aquatic life with long lasting effects.

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Precautionary statements (CLP) : P102 - Keep out of reach of children.

P260 - Do not breathe spray.

P264 - Wash hands thoroughly after handling. P273 - Avoid release to the environment. P280 - Wear protective gloves, eye protection.

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P314 - Get medical advice/attention if you feel unwell.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water or shower.

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. P337+P313 - If eye irritation persists: Get medical advice/attention.

P363 - Wash contaminated clothing before reuse.

P391 - Collect spillage.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

omponent		
Isotridecanol, ethoxylated (69011-36-5)	PBT: not relevant – no registration required vPvB: not relevant – no registration required	
Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides (68424-85-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Beta-alanine, N-(2-carboxyethyl)-,N-coco alykyl derivs., disodium salts	(CAS-no) 90170-43-7 (Einecs nr) 290-476-8 (REACH-no) 01-2119976233-35	1 – 3	Eye Irrit. 2, H319
Isotridecanol, ethoxylated	(CAS-no) 69011-36-5 (Einecs nr) 931-138-8 (EG annex nr) / (REACH-no) Exempted	1 – 3	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg) Eye Dam. 1, H318
Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides	(CAS-no) 68424-85-1 (Einecs nr) 270-325-2	1 – 3	Acute Tox. 4 (Oral), H302 (ATE=795 mg/kg bodyweight) Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
Sodium hydroxide substance with national workplace exposure limit(s) (IE, GB)	(CAS-no) 1310-73-2 (Einecs nr) 215-185-5 (EG annex nr) 011-002-00-6 (REACH-no) 01-2119457892-27	1 – 3	Skin Corr. 1A, H314 Eye Dam. 1, H318 Met. Corr. 1, H290
Fatty alcohol ethoxylate	(CAS-no) 160875-66-1 (Einecs nr) 605-233-7 (EG annex nr) /	1 – 3	Acute Tox. 4 (Oral), H302 (ATE=300 mg/kg bodyweight) Eye Dam. 1, H318

Specific concentration limits:	concentration limits:		
Name	Product identifier	Specific concentration limits	
Sodium hydroxide	(CAS-no) 1310-73-2 (Einecs nr) 215-185-5 (EG annex nr) 011-002-00-6 (REACH-no) 01-2119457892-27	(0.5 ≤C < 2) Eye Irrit. 2, H319 (0.5 ≤C < 2) Skin Irrit. 2, H315 (2 ≤C < 5) Skin Corr. 1B, H314 (5 ≤C < 100) Skin Corr. 1A, H314	

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Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical

advice (show the label where possible)

Inhalation : Allow affected person to breathe fresh air. Allow the victim to rest. If breathing is difficult,

remove victim to fresh air and keep at rest in a position comfortable for breathing. Get

medical advice/attention.

Skin contact : Remove contaminated clothing. Drench affected area with water for at least 15 minutes. If

skin irritation occurs: Get medical advice/attention.

Eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Obtain medical

attention if pain, blinking or redness persists.

Ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Acute effects inhalation : May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat

with constricting sensation of the larynx and difficulty in breathing.

Acute effects skin : Causes severe burns. irritation (itching, redness, blistering).

Acute effects eyes : Causes serious eye damage.

Acute effects oral route : Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Blood in

vomit.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Corrosive vapours. Toxic fumes may be released. Carbon dioxide. Carbon monoxide.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire fighting water from entering the environment.

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

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work. Provide good ventilation in process area to prevent

formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed.

Incompatible products : Strong acids.

Packaging materials : polyethylene. stainless steel.

7.3. Specific end use(s)

No additional information available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Sodium hydroxide (1310-73-2)	
reland - Occupational Exposure Limits	
Local name	Sodium hydroxide
OEL STEL	2 mg/m³
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
Local name	Sodium hydroxide
WEL STEL (OEL STEL)	2 mg/m³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Personal protective equipment symbol(s):







8.2.2.1. Eye and face protection

Eye protection: Chemical goggles or safety glasses

8.2.2.2. Skin protection

Protective	equipment:

Wear suitable protective clothing

Hand	protection	:
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Wear protective gloves.

8.2.2.3. Respiratory protection

No additional information available

8.2.2.4. Thermal hazards

No additional information available

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8.2.3. Environmental exposure controls

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : colourless to yellow.

Physical state/form : Liquid.

Odour : Characteristic.
Odour threshold : Not available

Melting point/range : 0 °C

Freezing point : Not available
Boiling point/Boiling range : 100 °C

Flammability : Non flammable. **Explosive limits** : Not available Lower explosive limit (LEL) : Not available Upper explosive limit (UEL) : Not available Flash point : Not available Autoignition temperature : Not available Decomposition temperature : Not available : 13 – 14 Viscosity, kinematic : Not available Solubility : Soluble in water. Partition coefficient n-octanol/water (Log Kow) : Not available : Not available Vapour pressure Vapour pressure at 50 °C : Not available : Not available Density

Relative density : 1.05

: Not available Relative vapour density at 20 °C Particle size : Not applicable Particle size distribution : Not applicable Particle shape : Not applicable Particle aspect ratio : Not applicable Particle aggregation state : Not applicable Particle agglomeration state : Not applicable Particle specific surface area : Not applicable Particle dustiness : Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : 0 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

aluminium. zinc.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

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SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

LD50 oral rat 795 mg/kg

Isotridecanol, ethoxylated (69011-36-5)	
LD50 oral rat	> 300 (≤ 2000) mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Fatty alcohol ethoxylate (160875-66-1)		
	LD50 oral rat	> 300 (300 – 2000) mg/kg
	LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation : Causes severe skin burns.

pH: 13 - 14

Serious eye damage/irritation : Assumed to cause serious eye damage

pH: 13 – 14

Respiratory or skin sensitisation : Not classified

Additional information : Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified

Additional information : Based on available data, the classification criteria are not met

Carcinogenicity : Not classified

Additional information : Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified

Additional information : Based on available data, the classification criteria are not met

STOT-single exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

NOAEL (oral, rat) > 250 mg/kg bodyweight

STOT-repeated exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

Aspiration hazard : Not classified

Additional information : Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

11.2.2 Other information

Potential adverse human health effects and : Based on available data, the classification criteria are not met symptoms

: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Harmful to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term

(acute)

Hazardous to the aquatic environment, long-term (chronic)

: Harmful to aquatic life with long lasting effects.

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Sodium hydroxide (1310-73-2)	
LC50 - Fish [1]	> 35 mg/l
EC50 - Crustacea [1]	40.4 mg/l (Ceriodaphnia)
EC50 - Other aquatic organisms [1]	> 33 mg/l waterflea

Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides (68424-85-1)	
LC50 - Fish [1]	0.85 mg/l
EC50 - Crustacea [1]	0.016 mg/l
EC50 72h - Algae [1]	0.02 mg/l
NOEC chronic crustacea	0.025 mg/l

Isotridecanol, ethoxylated (69011-36-5)	
LC50 - Fish [1]	> 1 mg/l
EC50 - Crustacea [1]	> 1 mg/l
ErC50 algae	1 – 10 mg/l

Fatty alcohol ethoxylate (160875-66-1)	
EC50 - Crustacea [1]	> 10 mg/l
ErC50 algae	> 10 mg/l
NOEC chronic fish	> 1 mg/l

12.2. Persistence and degradability

TFR AND POLISH	
Persistence and degradability	Biodegradable. The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Sodium hydroxide (1310-73-2)	
Persistence and degradability	Not applicable.

Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides (68424-85-1)	
Persistence and degradability	Biodegradable.
Biodegradation	> 90 %

Isotridecanol, ethoxylated (69011-36-5)	
Persistence and degradability	Readily biodegradable, according to appropriate OECD test. Not established.

Fatty alcohol ethoxylate (160875-66-1)	
Persistence and degradability	Biodegradable.
40.0 Di	

12.3. Bioaccumulative potential

TFR AND POLISH		
	Bioaccumulative potential	No bioaccumulation.

Sodium hydroxide (1310-73-2)	
Log Pow	-3.88
Bioaccumulative potential	No bioaccumulation.

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Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides (68424-85-1)	
Partition coefficient n-octanol/water (Log Kow)	2.88
Bioaccumulative potential	No bioaccumulation.

Isotridecanol, ethoxylated (69011-36-5)	
Bioaccumulative potential	No bioaccumulation. Not established.

Fatty alcohol ethoxylate (160875-66-1)	
Bioaccumulative potential	No bioaccumulation.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

TFR AND POLISH

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Component	
Isotridecanol, ethoxylated (69011-36-5)	PBT: not relevant – no registration required vPvB: not relevant – no registration required
Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides (68424-85-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations

: Dispose in a safe manner in accordance with local/national regulations.

Waste / unused products

: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

In accordance with ADR / IMDG / IATA		
ADR	IMDG	IATA
14.1. UN number or ID number		
UN 1760	UN 1760	UN 1760
14.2. UN proper shipping name		
CORROSIVE LIQUID, N.O.S.	CORROSIVE LIQUID, N.O.S.	Corrosive liquid, n.o.s.
Transport document description		
UN 1760 CORROSIVE LIQUID, N.O.S. (Sodium hydroxide), 8, III, (E)	UN 1760 CORROSIVE LIQUID, N.O.S. (Sodium hydroxide), 8, III	UN 1760 Corrosive liquid, n.o.s. (Sodium hydroxide), 8, III
14.3. Transport hazard class(es)		
8	8	8
8	8	8
14.4. Packing group		
III	III	III

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14.5. Environmental hazards		
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No
No supplementary information available		

14.6. Special precautions for user

Overland transport

Classification code (ADR) : C9
Special provisions (ADR) : 274
Limited quantities (ADR) : 5I

Packing instructions (ADR) : P001, IBC03, LP01, R001

Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions : T7

(ADR)

Portable tank and bulk container special provisions

(ADR)

: TP1, TP28

Tank code (ADR) : L4BN
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Hazard identification number (Kemler No.) : 80

Orange plates

80 1760

Tunnel code : E
EAC code : 2X
APP code : B

Transport by sea

Special provisions (IMDG) : 223, 274
Limited quantities (IMDG) : 5 L
Packing instructions (IMDG) : P001, LP01

IBC packing instructions (IMDG)

: IBC03

Air transport

PCA Limited quantities (IATA) : Y841
PCA limited quantity max net quantity (IATA) : 1L
PCA packing instructions (IATA) : 852
PCA max net quantity (IATA) : 5L
CAO packing instructions (IATA) : 856
CAO max net quantity (IATA) : 60L
Special provisions (IATA) : A3, A803

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : 0 g/l

Detergent Regulation (648/2004/EC): Labelling of contents:

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Component	%
non-ionic surfactants	<5%
disinfectants	

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16

December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:		
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1	
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1	
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	
Met. Corr. 1	Corrosive to metals, Category 1	
Skin Corr. 1	Skin corrosion/irritation, Category 1	
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A	
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
H290	May be corrosive to metals.	
H302	Harmful if swallowed.	
H314	Causes severe skin burns and eye damage.	
H315	Causes skin irritation.	
H318	Causes serious eye damage.	
H319	Causes serious eye irritation.	
H400	Very toxic to aquatic life.	
H410	Very toxic to aquatic life with long lasting effects.	
H412	Harmful to aquatic life with long lasting effects.	

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Skin Corr. 1	H314	On basis of test data
Aquatic Chronic 3	H412	Calculation method

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.