



TECHNOL GREIN EP 1

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008 ***

For the full text of the H-Statements mentioned in this Section, see Section 2.2. ***

Classification

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008***

2.2. Label elements

Labelled according to REGULATION (EC) No 1272/2008***

Hazard Statements ***

None***

Precautionary statements

None***

Supplemental Hazard Statements

EUH210 - Safety data sheet available on request***

Contains Amines, C12-14-tert-alkyl. May produce an allergic reaction***

2.3. Other hazards

Physical-Chemical Properties Contaminated surfaces will be extremely slippery.

Environmental properties Should not be released into the environment.***

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Mixture

Hazardous components ***

Chemical Name	EC-No	REACH Registration Number	CAS-No	Weight %	GHS Classification
2,6-di-tert-butylphenol***	204-884-0	01-2119490822-33	128-39-2	0.5-1.0	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Skin Irrit. 2 (H315)
Amines, C12-14-tert-alkyl***	273-279-1***	01-2119456798-18** *	68955-53-3	0.1 - 0.24	Skin Corr. 1B (H314) Skin Sens. 1A (H317) Acute Tox. 4 (H302) Acute Tox. 3 (H311) Acute Tox. 2 (H330) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)***

Technol

TECHNOL GREININ EP 1

Long chain alkenylamine***	-	no data available	^	0.01-0.10	Skin Corr. 1B (H314) Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Eye Dam. 1 (H318) STOT SE 3 (H335) STOT RE 2 (H373) Asp. Tox. 1 (H304)***
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Additional information Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice	IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.***
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids.***
Skin contact	Remove contaminated clothing and shoes. Wash off with soap and water. Wash contaminated clothing before reuse.***
Inhalation	Move to fresh air.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control centre immediately.***

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

Eye contact	Not classified.
Skin contact	Not classified. May produce an allergic reaction.
Inhalation	Not classified. Inhalation of vapours in high concentration may cause irritation of respiratory system.
Ingestion	Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media Carbon dioxide (CO₂). ABC powder. Foam. Water spray or fog.***

TECHNOL GREIN EP 1

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Special hazard Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

5.3. Precautions for fire-fighters

Special protective equipment for fire-fighters Wear self-contained breathing apparatus and protective suit.

Other information Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

General Information Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.***

6.2. Environmental precautions

General Information Do not allow material to contaminate ground water system. Try to prevent the material from entering drains or water courses. Local authorities should be advised if significant spillages cannot be contained.***

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up Dam up. Contain spillage, and then collect with non-combustable absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.***

6.4. Reference to other sections

Personal protective equipment See Section 8 for more detail.

Waste treatment See section 13.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling When using, do not eat, drink or smoke. For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.***

TECHNOL GREININ EP 1

Prevention of fire and explosion	Take precautionary measures against static discharges. Ground/bond containers, tanks and transfer/receiving equipment.***
Hygiene measures	Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.***

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions	Keep away from food, drink and animal feedingstuffs. Keep in a bonded area. Keep container tightly closed. Preferably keep in the original container. Otherwise, reproduce all the statutory information from the labels onto the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Protect from frost, heat and sunlight. Protect from moisture.***
Materials to avoid	Strong oxidising agents.***

7.3. Specific use(s)

Specific use(s)	No information available.
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Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Exposure limits	Mineral oil mist: USA: OSHA (PEL) TWA 5 mg/m ³ , NIOSH (REL) TWA 5 mg/m ³ , STEL 10 mg/m ³ , ACGIH (TLV) TWA 5 mg/m ³ (highly refined)
Legend	See section 16

DNEL Worker (Industrial/Professional)***

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
2,6-di-tert-butylphenol*** 128-39-2			2.77 mg/kg bw/day Dermal 19.6 mg/m ³ Inhalation	
Amines, C12-14-tert-alkyl*** 68955-53-3			12.5 mg/m ³ Inhalation***	12.1 mg/m ³ Inhalation***

DNEL Consumer***

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
2,6-di-tert-butylphenol*** 128-39-2			1.67 mg/kg bw/day Oral 5.8 mg/m ³ Inhalation	



TECHNOL GREIN EP 1

Amines, C12-14-tert-alkyl*** 68955-53-3			2.5 mg/m ³ Inhalation 0.35 mg/kg bw/day Oral***	1.2 mg/m ³ Inhalation***
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Predicted No Effect Concentration (PNEC) ***

Chemical Name	Water	Sediment	Soil	Air	STP	Oral
2,6-di-tert-butylphenol*** 128-39-2	0.00045 mg/l fw 0.000045 mg/l mw 0.0045 mg/l or	0.196 mg/kg dw fw 0.0196 mg/kg dw mw	0.0389 mg/kg dw		10 mg/l	
Amines, C12-14-tert-alkyl*** 68955-53-3	0.001 mg/L fw 0.0001 mg/l mw 0.004 mg/l or***	2.14 mg/kg dw fw 0.214 mg/kg dw mw***	0.428 mg/kg dw***		0.635 mg/l***	4.71 mg/kg***

8.2. Exposure controls

Occupational Exposure Controls

Engineering measures

Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Personal protective equipment

General Information

If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387). Type A/P1. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

Eye protection

If splashes are likely to occur, wear: Safety glasses with side-shields.

Skin and body protection

Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing.

Hand protection

Hydrocarbon-proof gloves: Nitrile rubber, Fluorinated rubber. In case of prolonged contact with the product, it is recommended to wear gloves complying with EN 420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency.***

Environmental exposure controls

General Information

The product should not be allowed to enter drains, water courses or the soil.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

TECHNOL GREIN EP 1

Appearance	Clear***
Colour	brown***
Physical state @20°C	Liquid***
Odour	characteristic***
Odour Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Method</u>
Ph		
Dropping point	190°C	
Penetration	325 @ 25 °C	Penetration
Flash point ***		
Evaporation rate		No information available***
Flammability Limits in Air		No information available
Upper ***		No information available***
Lower ***		No information available***
Vapour pressure		No information available***
Vapour density		No information available***
Relative density ***		
Density		
Water solubility		Insoluble***
Solubility in other solvents		Soluble in many common organic solvents***
logPow		No information available***
Autoignition temperature		No information available***
Decomposition temperature		No information available
Viscosity, kinematic ***	160 mm ² /s	@ 40 °C *** ASTM D 445***

Explosive properties	Not explosive***	
Oxidising properties	Not applicable***	
Possibility of hazardous reactions	No information available***	

9.2. Other information

Freezing point	No information available
Pour point ***	

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

General Information	No information available.***
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10.2. Chemical stability



TECHNOL GREIN EP 1

Stability Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions None under normal processing.

10.4. Conditions to Avoid

Conditions to Avoid Heat (temperatures above flash point), sparks, ignition points, flames, static electricity.***

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.***

10.6. Hazardous Decomposition Products

Hazardous Decomposition Products None under normal use. Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.***

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity Local effects Product Information

Skin contact . Not classified. May produce an allergic reaction.

Eye contact . Not classified.

Inhalation . Not classified. Inhalation of vapours in high concentration may cause irritation of respiratory system.

Ingestion . Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
2,6-di-tert-butylphenol***	> 5000 mg/kg (Rat)	LD50 > 2000 mg/kg (Rabbit)	
Amines, C12-14-tert-alkyl***	LD50 612 mg/kg (Rat)	LD50 251 mg/kg (Rabbit)	LC50 (4h) 157 ppm (Rat - gas)
Long chain alkenylamine***	LD50 1689 mg/kg (Rat)	LD50 > 2000 mg/kg (Rabbit)	

Sensitisation

Sensitisation Not classified as a sensitizer. Contains sensitizer(s). May produce an allergic reaction.

Specific effects

Carcinogenicity This product is not classified carcinogenic.

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TECHNOL GREIN EP 1

Mutagenicity This product is not classified as mutagenic.
Reproductive toxicity This product does not present any known or suspected reproductive hazards.

Repeated Dose Toxicity

Subchronic Toxicity No information available.

Target Organ Effects (STOT)

Other information

Other adverse effects Characteristic skin lesions (oil blisters) may develop following prolonged and repeated exposures (contact with contaminated clothing).

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Not classified. The supplier of one of the components contained within this formulation has indicated that they have data, which confirms that at the concentration used, no aquatic environmental hazard classification is required.***

Acute aquatic toxicity - Product Information

No information available.***

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
2,6-di-tert-butylphenol*** 128-39-2	EC50 (72h) 1.2 mg/l	EC50 (48h) = 0.45 mg/L Daphnia magna	LC50(96h) 1 mg/l (fish)	
Amines, C12-14-tert-alkyl*** 68955-53-3	EC50 (72h) 0.44 mg/l (Algae)	EC50 (48h) 2.5 mg/l (Daphnia magna)	LC50 (96h) 1.3 mg/l (Fish)	
Long chain alkenylamine*** ^	EC50 (96h) 0.03 mg/l (Algae)	EC50 (48h) 0.011 mg/l (Daphnia magna)	LC50 (96h) 0.11 mg/l (Fish)	

Chronic aquatic toxicity - Product Information

No information available.

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
2,6-di-tert-butylphenol*** 128-39-2			NOEC (28d) 0.3 mg/l (fish)	

Effects on terrestrial organisms

No information available.***

12.2. Persistence and Degradability

TECHNOL GREIN EP 1

General Information
No information available.

12.3. Bioaccumulative potential

Product Information No information available.***

logPow No information available***
Component Information

Chemical Name	log Pow
2,6-di-tert-butylphenol*** - 128-39-2	4.48
Amines, C12-14-tert-alkyl*** - 68955-53-3	2.9

12.4. Mobility in soil

Soil Given its physical and chemical characteristics, the product generally shows low soil mobility.***

Air Loss by evaporation is limited.***

Water Insoluble. The product spreads on the surface of the water.***

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

12.6. Other adverse effects

General Information No information available.***

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues / unused products Should not be released into the environment. Dispose of in accordance with the European Directives on waste and hazardous waste. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.***

EWC Waste Disposal No The following Waste Codes are only suggestions: 13 02 05. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORT INFORMATION

TECHNOL GREININ EP 1

<u>ADR/RID</u>	not regulated
<u>IMDG/IMO</u>	not regulated
<u>ICAO/IATA</u>	not regulated
<u>ADN</u>	not regulated

Section 15: REGULATORY INFORMATION

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

88/379/EEC (Classification and Labelling):

Symbols:

Xn Harmful

R Phrases:

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin.

S Phrases:

S2 Keep out of reach of children.

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

S28 After contact with skin, wash immediately with plenty of... (to be specified by the manufacturer).

Special Provisions:

EC label.

Contents:

2,4,6-tris(dimethylaminomethyl)phenol

Where applicable, refer to the following regulatory provisions :

Directive 82/501/EEC ('Activities linked to risks of serious accidents') and subsequent amendments.

Section 16: OTHER INFORMATION



TECHNOL GREININ EP 1

Full text of H-Statements referred to under sections 2 and 3

H400 - Very toxic to aquatic life
 H410 - Very toxic to aquatic life with long lasting effects
 H315 - Causes skin irritation
 H314 - Causes severe skin burns and eye damage
 H317 - May cause an allergic skin reaction
 H302 - Harmful if swallowed
 H311 - Toxic in contact with skin
 H330 - Fatal if inhaled
 H335 - May cause respiratory irritation
 H318 - Causes serious eye damage
 H373 - May cause damage to the kidneys/ liver/ eyes/ brain/ digestive system/ central nervous system through prolonged or repeated exposure if swallowed
 H304 - May be fatal if swallowed and enters airways***

Abbreviations, acronyms

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material
 OECD = Organization for Economic Co-operation and Development
 bw = body weight
 bw/day = body weight/day
 GLP = Good Laboratory Practice
 fw = fresh water
 mw = marine water
 or = occasional release
 dw = dry weight
 NIOSH = National Institute of Occupational Safety and Health
 OSHA = Occupational Safety and Health Administration
 ACGIH = American Conference of Governmental Industrial Hygienists
 IARC = International Agency for Research of Cancer
 DNEL = Derived No Effect Level
 PNEC = Predicted No Effect Concentration
 LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals
 LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals
 LL = Lethal Loading
 NOEC = No Observed Effect Concentration
 NOEL = No Observed Effect Level
 NOAEL = No Observed Adverse Effect Level
 EC x = Effect Concentration associated with x% response

Legend Section 8

TWA: Time Weight Average

STEL: Short Time Exposure Limit

+	Sensitiser	*	Skin designation
**	Hazard Designation	C:	Carcinogen
M:	Mutagen	R:	Toxic to reproduction

Revision Note

*** Indicates updated section.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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TECHNOL GRENIN EP 1

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of Safety Data Sheet