



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

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

1.1. Product identifier

G317, Perfect Clarity Headlight Cleaner (27-135A)

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

Identified uses

Automotive.

1.3. Details of the supplier of the safety data sheet

Address: Meguiars United Kingdom Limited, 3 Lamport Court, Heartlands, Daventry, Northants, NN11 8UF
Telephone: +44 (0)870 241 6696
E Mail: info@meguiars.co.uk
Website: www.meguiars.co.uk

1.4. Emergency telephone number

+44 (0)870 241 6696

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:

Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

WARNING.

Symbols:

GHS07 (Exclamation mark) |

Pictograms



HAZARD STATEMENTS:

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

General:

P102 Keep out of reach of children.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Disposal:

P501 Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:

<=125 ml Hazard statements

H412 Harmful to aquatic life with long lasting effects.

SUPPLEMENTAL INFORMATION:

Supplemental Hazard Statements:

EUH208 Contains 3-Cyclohexene-1-carboxaldehyde and 4-(4-Hydroxy-4-methylpentyl)cyclohex-3-ene-1-carbaldehyde. | Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one. May produce an allergic reaction.

Contains 2% of components with unknown hazards to the aquatic environment.

Information required per Regulation (EU) No 528/2012 on Biocidal Products:

Contains a biocidal product: Contains C(M)IT/MIT (3:1). May produce an allergic reaction.

Notes on labelling

Updated per Regulation (EC) No. 648/2004 on detergents.

Ingredients required per 648/2004: <5%: Anionic surfactant, amphoteric surfactant, Non-ionic surfactants. Contains: Perfumes, Colorant, Linalool, Citronellol, Hydroxyisohexyl 3-cyclohexene carboxaldehyde, Mixture of Methylchloroisothiazolinone and Methylisothiazolinone (3:1)

Eye classification based on test data.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EC No.	REACH Registration No.	% by Wt	Classification
Non-Hazardous Ingredients	Mixture			60 - 90	Substance not classified as hazardous
Aluminium Oxide (non-fibrous)	1344-28-1	215-691-6	01-2119529248-35	10 - 30	Substance with a Community level exposure limit in the workplace
Sodium Chloride	7647-14-5	231-598-3	01-2119485491-33	1 - 5	Substance not classified as hazardous
Sulphuric acid, mono-C10-16-alkyl esters, sodium salts	68585-47-7	271-557-7		1 - 2	Skin Irrit. 2, H315; Eye Dam. 1, H318; STOT SE 3, H335
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	268-356-1		0.1 - 1	Aquatic Acute 1, H400; Aquatic Chronic 3, H412
Dodecyldimethylamine oxide	1643-20-5	216-700-6		0.1 - 1	Aquatic Acute 1, H400,M=1; Aquatic Chronic 1, H410,M=1
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	61789-40-0	263-058-8		0.1 - 0.5	Eye Dam. 1, H318; Aquatic Acute 1, H400,M=1; Aquatic Chronic 2, H411
3-Cyclohexene-1-carboxaldehyde and 4-(4-Hydroxy-4-methylpentyl)cyclohex-3-ene-1-carbaldehyde	31906-04-4	250-863-4		< 0.1	Skin Sens. 1A, H317 Aquatic Chronic 3, H412
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	55965-84-9			< 0.0015	Acute Tox. 3, H331; Acute Tox. 3, H311; Acute Tox. 3, H301; Skin Corr. 1B, H314; Skin Sens. 1A, H317; Aquatic Acute 1, H400,M=1; Aquatic Chronic 1, H410,M=1

Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

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

Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact

Rinse skin with large amounts of water. If symptoms persist, get medical attention.

Eye contact

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical

attention.

If swallowed

Rinse mouth. If you feel unwell, get medical attention.

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

See Section 11.1 Information on toxicological effects

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Material will not burn.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

5.3. Advice for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with water. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid eye contact. Keep out of reach of children. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Store away from acids. Store away from oxidising agents.

7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and

personal protection recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Aluminium Oxide (non-fibrous)	1344-28-1	UK HSC	TWA(as inhalable dust):10 mg/m ³ ;TWA(as respirable dust):4 mg/m ³	

UK HSC : UK Health and Safety Commission
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

Biological limit values

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Indirect vented goggles.

Applicable Norms/Standards

Use eye protection conforming to EN 166

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended:

Material	Thickness (mm)	Breakthrough Time
Polymer laminate	No data available	No data available

Applicable Norms/Standards

Use gloves tested to EN 374

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following

respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Applicable Norms/Standards

Use a respirator conforming to EN 140 or EN 136: filter types A & P

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Appearance/Odour	Sweet berry odor; white; liquid
Odour threshold	No data available.
pH	8 - 9.5
Boiling point/boiling range	>=93.3 °C
Melting point	Not applicable.
Flammability (solid, gas)	Not applicable.
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	No flash point
Autoignition temperature	Not applicable.
Flammable Limits(LEL)	Not applicable.
Flammable Limits(UEL)	Not applicable.
Vapour pressure	No data available.
Relative density	1.15 - 1.27 [Ref Std:WATER=1]
Water solubility	Complete
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Evaporation rate	No data available.
Vapour density	No data available.
Decomposition temperature	No data available.
Viscosity	5,000 - 15,000 mPa-s
Density	1.15 - 1.27 g/ml

9.2. Other information

EU Volatile Organic Compounds	No data available.
Percent volatile	68.2 % weight [Test Method:Estimated]

SECTION 10: Stability and reactivity

10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Temperatures above the boiling point.

10.5 Incompatible materials

Strong oxidising agents.
Strong acids.

10.6 Hazardous decomposition products**Substance**

Carbon monoxide.
Carbon dioxide.

Condition

At elevated temperatures.
At elevated temperatures.

SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

11.1 Information on Toxicological effects**Signs and Symptoms of Exposure**

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin contact

Mild Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness.

Eye contact

Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Aluminium Oxide (non-fibrous)	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminium Oxide (non-fibrous)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.3 mg/l
Aluminium Oxide (non-fibrous)	Ingestion	Rat	LD50 > 5,000 mg/kg
Sulphuric acid, mono-C10-16-alkyl esters, sodium salts	Dermal	Rat	LD50 > 2,000 mg/kg
Sulphuric acid, mono-C10-16-alkyl esters, sodium salts	Ingestion	Rat	LD50 977 mg/kg
Sodium Chloride	Dermal	Rabbit	LD50 > 10,000 mg/kg
Sodium Chloride	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 10.5 mg/l
Sodium Chloride	Ingestion	Rat	LD50 3,550 mg/kg
Dodecylidimethylamine oxide	Ingestion	Mouse	LD50 2,700 mg/kg

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Dodecyltrimethylamine oxide	Dermal	Rabbit	LD50 3,536 mg/kg
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Dermal	Rat	LD50 > 2,000 mg/kg
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Ingestion	Rat	LD50 > 1,500 mg/kg
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	Dermal	Rabbit	LD50 87 mg/kg
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.33 mg/l
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	Ingestion	Rat	LD50 40 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Aluminium Oxide (non-fibrous)	Rabbit	No significant irritation
Sulphuric acid, mono-C10-16-alkyl esters, sodium salts	Rabbit	Irritant
Sodium Chloride	Rabbit	No significant irritation
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Rabbit	Mild irritant
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	Rabbit	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
Aluminium Oxide (non-fibrous)	Rabbit	No significant irritation
Sulphuric acid, mono-C10-16-alkyl esters, sodium salts	Rabbit	Corrosive
Sodium Chloride	Rabbit	Mild irritant
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Rabbit	Corrosive
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	Rabbit	Corrosive

Skin Sensitisation

Name	Species	Value
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Multiple animal species	Not classified
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	Human and animal	Sensitising

Photosensitisation

Name	Species	Value
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	Human and animal	Not sensitising

Respiratory Sensitisation

For the component/components, either no data is currently available or the data is not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Aluminium Oxide (non-fibrous)	In Vitro	Not mutagenic
Sodium Chloride	In Vitro	Some positive data exist, but the data are not sufficient for classification
Sodium Chloride	In vivo	Some positive data exist, but the data are not

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		sufficient for classification
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	In Vitro	Not mutagenic
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	In vivo	Not mutagenic
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	In vivo	Not mutagenic
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Aluminium Oxide (non-fibrous)	Inhalation	Rat	Not carcinogenic
Sodium Chloride	Ingestion	Rat	Not carcinogenic
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	Dermal	Mouse	Not carcinogenic
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	Ingestion	Rat	Not carcinogenic

Reproductive Toxicity
Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	Ingestion	Not classified for female reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	Ingestion	Not classified for male reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	Ingestion	Not classified for development	Rat	NOAEL 15 mg/kg/day	during organogenesis

Target Organ(s)
Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Sulphuric acid, mono-C10-16-alkyl esters, sodium salts	Inhalation	respiratory irritation	May cause respiratory irritation	similar health hazards	NOAEL Not available	
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Aluminium Oxide (non-fibrous)	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Aluminium Oxide (non-fibrous)	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
Sodium Chloride	Ingestion	blood kidney and/or bladder vascular system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 2,240 mg/kg/day	9 months
Sodium Chloride	Ingestion	nervous system eyes	Some positive data exist, but the data are not sufficient for	Rat	NOAEL 1,700	90 days

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			classification		mg/kg/day	
Sodium Chloride	Ingestion	liver respiratory system	Not classified	Rat	NOAEL 33 mg/kg/day	90 days
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Ingestion	heart endocrine system hematopoietic system liver nervous system eyes kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	92 days

Aspiration Hazard

For the component/components, either no data is currently available or the data is not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
Aluminium Oxide (non-fibrous)	1344-28-1		Experimental	96 hours	LC50	>100 mg/l
Aluminium Oxide (non-fibrous)	1344-28-1	Green algae	Experimental	72 hours	EC50	>100 mg/l
Aluminium Oxide (non-fibrous)	1344-28-1	Water flea	Experimental	48 hours	LC50	>100 mg/l
Aluminium Oxide (non-fibrous)	1344-28-1	Green algae	Experimental	72 hours	NOEC	>100 mg/l
Sodium Chloride	7647-14-5	Algae other	Experimental	96 hours	EC50	2,430 mg/l
Sodium Chloride	7647-14-5	Bluegill	Experimental	96 hours	LC50	5,840 mg/l
Sodium Chloride	7647-14-5	Water flea	Experimental	48 hours	LC50	874 mg/l
Sodium Chloride	7647-14-5	Fathead minnow	Experimental	33 days	NOEC	252 mg/l
Sodium Chloride	7647-14-5	Water flea	Experimental	21 days	NOEC	314 mg/l
Sulphuric acid, mono-C10-16-alkyl esters, sodium salts	68585-47-7		Data not available or insufficient for classification			
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Algae other	Estimated	96 hours	EC50	0.9 mg/l
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Water flea	Estimated	48 hours	EC50	1.62 mg/l
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Zebra Fish	Estimated	96 hours	LC50	0.6 mg/l
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Algae other	Estimated	96 hours	NOEC	0.3 mg/l

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Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Fathead minnow	Estimated	30 days	NOEC	1 mg/l
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Water flea	Estimated	21 days	NOEC	0.3 mg/l
Dodecyldimethylamine oxide	1643-20-5	Green algae	Experimental	72 hours	EC50	0.11 mg/l
Dodecyldimethylamine oxide	1643-20-5	Ricefish	Experimental	96 hours	LC50	30 mg/l
Dodecyldimethylamine oxide	1643-20-5	Water flea	Experimental	48 hours	EC50	2.2 mg/l
Dodecyldimethylamine oxide	1643-20-5	Fathead minnow	Experimental	302 days	NOEC	0.42 mg/l
Dodecyldimethylamine oxide	1643-20-5	Green algae	Experimental	72 hours	NOEC	0.0049 mg/l
Dodecyldimethylamine oxide	1643-20-5	Water flea	Experimental	21 days	NOEC	0.36 mg/l
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	61789-40-0	Common Carp	Experimental	96 hours	LC50	1.9 mg/l
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	61789-40-0	Green algae	Experimental	96 hours	EC50	0.55 mg/l
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	61789-40-0	Water flea	Experimental	24 hours	EC50	1.1 mg/l
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	61789-40-0	Green algae	Experimental	72 hours	NOEC	0.09 mg/l
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	61789-40-0	Water flea	Experimental	21 days	NOEC	0.9 mg/l
3-Cyclohexene-1-carboxaldehyde and 4-(4-Hydroxy-4-methylpentyl)cyclohex-3-ene-1-carbaldehyde	31906-04-4	Fathead minnow	Experimental	96 hours	LC50	11.8 mg/l
3-Cyclohexene-1-carboxaldehyde and 4-(4-Hydroxy-4-methylpentyl)cyclohex-3-ene-1-carbaldehyde	31906-04-4	Green Algae	Experimental	72 hours	EC50	25.4 mg/l
3-Cyclohexene-1-carboxaldehyde and 4-(4-Hydroxy-4-methylpentyl)cyclohex-3-ene-1-carbaldehyde	31906-04-4	Water flea	Experimental	48 hours	EC50	76 mg/l
3-Cyclohexene-1-carboxaldehyde and 4-(4-Hydroxy-4-methylpentyl)cyclohex-3-ene-1-carbaldehyde	31906-04-4	Green Algae	Experimental	72 hours	NOEC	5.95 mg/l

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Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	55965-84-9	Diatom	Experimental	72 hours	EC50	0.021 mg/l
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	55965-84-9	Water flea	Experimental	48 hours	EC50	0.18 mg/l
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	55965-84-9	Diatom	Experimental	72 hours	NOEC	0.01 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Aluminium Oxide (non-fibrous)	1344-28-1	Data not available or insufficient			N/A	
Sodium Chloride	7647-14-5	Data not available or insufficient			N/A	
Sulphuric acid, mono-C10-16-alkyl esters, sodium salts	68585-47-7	Estimated Biodegradation	14 days	BOD	70 % weight	Other methods
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Estimated Biodegradation	28 days	Dissolv. Organic Carbon Deplet	94 % weight	OECD 301A - DOC Die Away Test
Dodecyltrimethylamine oxide	1643-20-5	Experimental Biodegradation	28 days	CO2 evolution	95.27 % weight	OECD 301B - Modified sturm or CO2
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	61789-40-0	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	100 %removal of DOC	OECD 301E - Modified OECD Scre
3-Cyclohexene-1-carboxaldehyde and 4-(4-Hydroxy-4-methylpentyl)cyclohex-3-ene-1-carbaldehyde	31906-04-4	Experimental Biodegradation	28 days	CO2 evolution	41.2 % weight	OECD 301B - Modified sturm or CO2
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	55965-84-9	Data not available or insufficient			N/A	

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Aluminium Oxide (non-fibrous)	1344-28-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Sodium Chloride	7647-14-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Sulphuric acid, mono-C10-16-alkyl esters, sodium salts	68585-47-7	Estimated Bioconcentration		Bioaccumulation factor	100	Other methods
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Estimated BCF - Fathead Mi	28 days	Bioaccumulation factor	245	
Dodecyltrimethylamine oxide	1643-20-5	Estimated Bioconcentration		Log Kow	1.85	Other methods
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	61789-40-0	Estimated Bioconcentration		Log Kow	0.69	Other methods
3-Cyclohexene-1-carboxaldehyde and 4-(4-	31906-04-4	Experimental Bioconcentration		Log Kow	2.1	Other methods

G317, Perfect Clarity Headlight Cleaner (27-135A)

Hydroxy-4-methylpentyl)cyclohex-3-ene-1-carbaldehyde						
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	55965-84-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil

Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

This material does not contain any substances that are assessed to be a PBT or vPvB

12.6. Other adverse effects

No information available.

The surfactant(s) contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of the manufacturer, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/CE and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor

EU waste code (product as sold)

070601* Aqueous washing liquids and mother liquors

SECTION 14: Transportation information

ADR/IMDG/IATA: Not restricted for transport.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Global inventory status**

Contact manufacturer for more information The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with

the new substance notification requirements of CEPA. The components of this product are in compliance with the chemical notification requirements of TSCA.

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this mixture. Chemical safety assessments for the contained substances may have been carried out by the registrants of the substances in accordance with Regulation (EC) No 1907/2006, as amended.

SECTION 16: Other information

List of relevant H statements

H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:

Section 2: <125ml Hazard - Environmental information was added.

Contains statement for sensitizers information was added.

Label: CLP Classification information was modified.

Label: CLP Precautionary - Prevention information was deleted.

Label: CLP Precautionary - Response information was modified.

List of sensitizers information was added.

Section 3: Composition/ Information of ingredients table information was modified.

Section 4: First aid for skin contact information information was modified.

Section 5: Hazardous combustion products table information was deleted.

Section 7: Precautions safe handling information information was modified.

Section 9: Boiling point information information was modified.

Section 9: Density information information was modified.

Section 9: Evaporation Rate information information was modified.

Section 9: Flammable limits (LEL) information information was modified.

Section 9: Flammable limits (UEL) information information was modified.

Section 9: Solubility as text (non-water) information was deleted.

Section 9: Solubility in water value information was deleted.

Section 9: Viscosity information information was modified.

Section 10: Hazardous decomposition or by-products table information was modified.

Section 10: Hazardous decomposition products during combustion text information was deleted.

Section 11: Acute Toxicity table information was modified.

Section 11: Carcinogenicity Table information was modified.

Section 11: Germ Cell Mutagenicity Table information was modified.

Section 11: Health Effects - Skin information information was modified.

Photosensitisation Table information was added.

Section 11: Reproductive and/or Developmental Effects text information was added.

Section 11: Reproductive Toxicity Table information was added.

Section 11: Serious Eye Damage/Irritation Table information was modified.

Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Skin Sensitization Table information was added.
Section 11: Skin Sensitization text information was deleted.
Section 11: Specific Target Organ Toxicity - single exposure text information was deleted.
Section 11: Target Organs - Repeated Table information was modified.
Section 11: Target Organs - Single Table information was added.
Section 12: Component ecotoxicity information information was modified.
Section 12: No PBT/vPvB information available warning information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12: Biocumulative potential information information was modified.
Section 13: 13.1. Waste disposal note information was modified.
Section 13: EU waste code (product as sold) information information was modified.
Section 13: Standard Phrase Category Waste GHS information was modified.
Section 15: Chemical Safety Assessment information was modified.
Section 15: Label remarks and EU Detergent information was modified.
Section 15: Regulations - Inventories information was modified.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material.
information was modified.
Section 16: Web address information was modified.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

Meguiar's, Inc. United Kingdom SDSs are available at www.meguiars.co.uk