



Safety Data Sheet

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Document group:	26-8072-6	Version number:	4.00
Revision date:	10/05/2015	Supersedes date:	22/11/2013
Transportation version number:	1.00 (02/06/2011)		

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

D140, Wheel Brightener (22-95A): D14001, D14005, D14025, D14055

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:

Substance or Mixture Corrosive to Metals, Category 1 - Met. Corr. 1; H290
Acute Toxicity, Category 4 - Acute Tox. 4; H302
Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318
Skin Corrosion/Irritation, Category 1B - Skin Corr. 1B; H314

For full text of H phrases, see Section 16.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Indication of danger

Harmful; Xn; R22

Corrosive; C; R34

For full text of R phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

DANGER.

Symbols:

GHS05 (Corrosion) | GHS07 (Exclamation mark) |

Pictograms



Ingredient	CAS Nbr	% by Wt
Ammonium hydrogendifluoride	1341-49-7	5 - 10
Ammonium Fluoride	12125-01-8	0.1 - 0.5

HAZARD STATEMENTS:

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

PRECAUTIONARY STATEMENTS

General:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

Prevention:

P234	Keep only in original container.
P260E	Do not breathe vapour or spray.
P280D	Wear protective gloves, protective clothing, and eye/face protection.

Response:

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.
P310	Immediately call a POISON CENTRE or doctor/physician.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Storage:

P405	Store locked up.
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Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.
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5% of the mixture consists of components of unknown acute inhalation toxicity.

D140, Wheel Brightener (22-95A): D14001, D14005, D14025, D14055

Contains 10% of components with unknown hazards to the aquatic environment.

Notes on labelling

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

Ingredients required per 648/2004 (not required on industrial label): <5%: Non-ionic surfactant. Contains: Perfume, optical brightener.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive**Symbol(s)**

Corrosive

Contains:

Ammonium hydrogendifluoride; Ammonium Fluoride

Risk phrases

R22 Harmful if swallowed.
R34 Causes burns.

Safety phrases

S23C Do not breathe vapour or spray.
S51 Use only in well ventilated areas.
S36/37/39B Wear suitable protective clothing, gloves, and eye and face protection.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28C After contact with skin, wash immediately with plenty of water for 15 minutes.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S46 If swallowed, seek medical advice immediately and show this container or label.
S1/2 Keep locked up and out of reach of children.

Notes on labelling

Updated per Regulation (EC) 648/2004 on detergents.

Ingredients required per 648/2004 (not required on industrial label): <5%: Non-ionic surfactant. Contains: Perfume, optical brightener.

2.3. Other hazards

May cause chemical gastrointestinal burns. May cause chemical respiratory tract burns.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
Non-Hazardous Ingredients	Mixture		70 - 90	
Ammonium hydrogendifluoride	1341-49-7	EINECS 215-676-4	5 - 10	T:R25; C:R34 (EU) Acute Tox. 3, H301; Skin Corr. 1B, H314 (CLP)
Sodium xylenesulphonate	1300-72-7	EINECS 215-090-9	1 - 5	
Alcohols, C9-11, ethoxylated	68439-46-3		0.5 - 1.5	Xn:R22; Xi:R38-41; R52 (Self Classified)

D140, Wheel Brightener (22-95A): D14001, D14005, D14025, D14055

				Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Dam. 1, H318; Aquatic Chronic 3, H412 (Self Classified)
Ammonium Fluoride	12125-01-8	EINECS 235-185-9	0.1 - 0.5	T:R23-24-25 (EU) R52 (Self Classified) Acute Tox. 3, H331; Acute Tox. 3, H311; Acute Tox. 3, H301 (CLP)
Benzaldehyde	100-52-7	EINECS 202-860-4	<= 0.1	Xn:R22 (EU) R52 (Self Classified) Acute Tox. 4, H302 (CLP)

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

Please refer to section 15 for the any applicable Notas that have been applied to the above components

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. Get immediate medical attention.

Skin contact

Immediately flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

Eye contact

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

If swallowed

Rinse mouth. Do not induce vomiting. Get immediate 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**

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

Exposure to extreme heat can give rise to thermal decomposition.

Hazardous Decomposition or By-Products**Substance**

Carbon monoxide.
Carbon dioxide.

Condition

During combustion.
During combustion.

D140, Wheel Brightener (22-95A): D14001, D14005, D14025, D14055

Hydrogen Fluoride
Irritant vapours or gases.

During combustion.
During combustion.

5.3. Advice for fire-fighters

When fire fighting conditions are severe and total thermal decomposition of the product is possible, wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, tunic and trousers (leggings), bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. 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. Absorb spillage to prevent material damage. 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 metal container approved for use in transportation by appropriate authorities. The container must be lined with polyethylene plastic or contain a plastic drum liner made of polyethylene. Collect the resulting residue containing solution. Clean up residue with water. Cover, but do not seal for 48 hours. 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 inhalation of thermal decomposition products. Keep out of reach of children. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Store away from heat. Store in a corrosive resistant container with a resistant inner liner. Store away from acids. Store away from strong bases. 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

No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.

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

Provide appropriate local exhaust when product is heated. 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:

Full face shield.

Indirect vented goggles.

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.

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

Material	Thickness (mm)	Breakthrough Time
Butyl rubber.	No data available	No data available

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron – Butyl rubber

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:

During heating:

Use a positive pressure supplied-air respirator if there is a potential for over exposure from an uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Appearance/Odour	Water-thin purple liquid with sweet odour.
Odour threshold	<i>No data available.</i>
pH	4.5 - 5.5
Boiling point/boiling range	98.9 °C

Melting point	<i>Not applicable.</i>
Flammability (solid, gas)	Not applicable.
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	Flash point > 93 °C (200 °F) [<i>Test Method:</i> Closed Cup]
Autoignition temperature	<i>No data available.</i>
Flammable Limits(LEL)	<i>Not applicable.</i>
Flammable Limits(UEL)	<i>Not applicable.</i>
Vapour pressure	<i>No data available.</i>
Relative density	1.04 [<i>Ref Std:</i> WATER=1]
Water solubility	Complete
Solubility- non-water	<i>No data available.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>
Evaporation rate	<i>No data available.</i>
Vapour density	<i>No data available.</i>
Decomposition temperature	<i>No data available.</i>
Viscosity	<i>No data available.</i>
Density	1.04 g/cm ³

9.2. Other information

Volatile organic compounds (VOC)	1 % weight
Percent volatile	<i>No data available.</i>
VOC less H₂O & exempt solvents	5.45 g/l

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

Heat.

10.5 Incompatible materials

Strong acids.
Strong bases.
Strong oxidising agents.

Reacts with metals/glass to form Hydrofluoric acid

10.6 Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

If the product is exposed to extreme conditions of heat from misuse or equipment failure, toxic decomposition products that include hydrogen fluoride and perfluoroisobutylene can occur. Extreme heat arising from situations such as misuse or equipment failure can generate hydrogen fluoride as a decomposition product.

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

Harmful if inhaled. Respiratory tract corrosion: Signs/symptoms may include nasal discharge, severe nose and throat pain, chest tightness and pain, coughing up blood, wheezing, and breathlessness, possibly progressing to respiratory failure. May cause additional health effects (see below).

Skin contact

Corrosive (skin burns): Signs/symptoms may include localised redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction. Allergic Skin Reaction (non-photo induced) in sensitive people: Signs/symptoms may include redness, swelling, blistering, and itching.

May cause additional health effects (see below).

Eye contact

Corrosive (eye burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion

Harmful if swallowed.

Gastrointestinal corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea; blood in the faeces and/or vomitus may also be seen. May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Cardiac effects: Signs/symptoms may include irregular heartbeat (arrhythmia), changes in heart rate, damage to heart muscle, heart attack, and may be fatal. Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure.

Prolonged or repeated exposure may cause target organ effects:

Hard tissue effects: Signs/symptoms may include colour changes in the teeth and nails, changes in development of bone, teeth or nails, weakening of the bones, and hair loss. Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure. Kidney/Bladder effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

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

D140, Wheel Brightener (22-95A): D14001, D14005, D14025, D14055

Name	Route	Species	Value
Overall product	Inhalation-Dust/Mist(4 hr)		No data available; calculated ATE1 - 5 mg/l
Overall product	Ingestion		No data available; calculated ATE300 - 2,000 mg/kg
Ammonium hydrogendifluoride	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.74 mg/l
Ammonium hydrogendifluoride	Ingestion	Rat	LD50 60 mg/kg
Sodium xylenesulphonate	Ingestion	Rat	LD50 > 5,000 mg/kg
Alcohols, C9-11, ethoxylated	Dermal	Rabbit	LD50 > 2,000 mg/kg
Alcohols, C9-11, ethoxylated	Ingestion	Rat	LD50 1,378 mg/kg
Ammonium Fluoride	Dermal		estimated to be 200 - 1,000 mg/kg
Ammonium Fluoride	Inhalation-Dust/Mist		estimated to be 0.5 - 1 mg/l
Ammonium Fluoride	Inhalation-Vapor		estimated to be > 50 mg/l
Ammonium Fluoride	Ingestion		estimated to be 50 - 300 mg/kg
Benzaldehyde	Dermal	Rabbit	LD50 > 1,250 mg/kg
Benzaldehyde	Inhalation-Dust/Mist (4 hours)	Rat	LC50 < 5 mg/l
Benzaldehyde	Ingestion	Rat	LD50 1,500 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Alcohols, C9-11, ethoxylated	Rabbit	Irritant
Benzaldehyde	Rabbit	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
Alcohols, C9-11, ethoxylated	Professional judgement	Corrosive
Benzaldehyde	Rabbit	Moderate irritant

Skin Sensitisation

Name	Species	Value
Alcohols, C9-11, ethoxylated	Guinea pig	Not sensitising
Benzaldehyde	Guinea pig	Some positive data exist, but the data are not sufficient for classification

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
Alcohols, C9-11, ethoxylated	In Vitro	Not mutagenic
Benzaldehyde	In vivo	Not mutagenic
Benzaldehyde	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Benzaldehyde	Ingestion	Mouse	Some positive data exist, but the data are not sufficient for classification

D140, Wheel Brightener (22-95A): D14001, D14005, D14025, D14055**Reproductive Toxicity****Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration
Alcohols, C9-11, ethoxylated	Dermal	Not toxic to female reproduction	Rat	NOAEL 250 mg/kg/day	2 generation
Alcohols, C9-11, ethoxylated	Dermal	Not toxic to development	Rat	NOAEL 250 mg/kg/day	2 generation
Alcohols, C9-11, ethoxylated	Dermal	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 100 mg/kg/day	2 generation
Benzaldehyde	Ingestion	Not toxic to female reproduction	Rat	NOAEL 5 mg/kg/day	1 generation

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

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Alcohols, C9-11, ethoxylated	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
Benzaldehyde	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 2.2 mg/l	6 hours
Benzaldehyde	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL NA	occupational exposure

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Alcohols, C9-11, ethoxylated	Dermal	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 125 mg/kg/day	13 weeks
Alcohols, C9-11, ethoxylated	Dermal	hematopoietic system	All data are negative	Rat	NOAEL 125 mg/kg/day	13 weeks
Benzaldehyde	Ingestion	liver nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 400 mg/kg/day	13 weeks
Benzaldehyde	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 300 mg/kg/day	13 weeks

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 Nbr	Organism	Type	Exposure	Test endpoint	Test result
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D140, Wheel Brightener (22-95A): D14001, D14005, D14025, D14055

Benzaldehyde	100-52-7	Bluegill	Experimental	96 hours	LC50	1.07 mg/l
Benzaldehyde	100-52-7	Water flea	Experimental	48 hours	EC50	9 mg/l
Ammonium hydrogendifluoride	1341-49-7		Data not available or insufficient for classification			
Alcohols, C9-11, ethoxylated	68439-46-3	Green algae	Experimental	72 hours	EC50	45 mg/l
Alcohols, C9-11, ethoxylated	68439-46-3	Fathead minnow	Experimental	96 hours	LC50	8.5 mg/l
Alcohols, C9-11, ethoxylated	68439-46-3	Water flea	Experimental	48 hours	EC50	2.686 mg/l
Alcohols, C9-11, ethoxylated	68439-46-3	Fathead minnow	Experimental	30 days	NOEC	0.73 mg/l
Alcohols, C9-11, ethoxylated	68439-46-3	Green Algae	Experimental	72 hours	NOEC	1.2 mg/l
Ammonium Fluoride	12125-01-8		Data not available or insufficient for classification			
Ammonium Fluoride	12125-01-8	Fathead minnow	Experimental	96 hours	LC50	364 mg/l
Ammonium Fluoride	12125-01-8	Grass Shrimp	Experimental	96 hours	EC50	75 mg/l
Sodium xylenesulphonate	1300-72-7	Water flea	Experimental	48 hours	EC50	>400 mg/l
Sodium xylenesulphonate	1300-72-7	Fathead minnow	Experimental	96 hours	LC50	>400 mg/l
Sodium xylenesulphonate	1300-72-7	Green Algae	Experimental	96 hours	EC50	230 mg/l
Sodium xylenesulphonate	1300-72-7	Green Algae	Experimental	96 hours	NOEC	31 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Benzaldehyde	100-52-7	Experimental Biodegradation	14 days	BOD	66 % weight	OECD 301C - MITI test (I)
Ammonium hydrogendifluoride	1341-49-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Alcohols, C9-11, ethoxylated	68439-46-3	Experimental Biodegradation	28 days	BOD	88 % weight	OECD 301F - Manometric respirometry
Ammonium Fluoride	12125-01-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Sodium	1300-72-7	Experimental	28 days	CO2 evolution	84 % weight	OECD 301B -

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xylenesulphonate		Biodegradation				Modified sturm or CO2
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12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Benzaldehyde	100-52-7	Experimental Bioconcentration		Log Kow	1.48	Other methods
Ammonium hydrogendifluoride	1341-49-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Alcohols, C9-11, ethoxylated	68439-46-3	Estimated Bioconcentration		Bioaccumulation factor	33	Estimated: Bioconcentration factor
Ammonium Fluoride	12125-01-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Sodium xylenesulphonate	1300-72-7	Estimated BCF-Carp	42 days	Bioaccumulation factor	=<2.3	OECD 305E - Bioaccumulation flow-through fish test

12.4. Mobility in soil

Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

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**

See Section 11.1 Information on toxicological effects

Dispose of waste product in a permitted industrial waste facility. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. 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)

20 01 29* Detergents containing dangerous substances

SECTION 14: Transportation information

ADR: UN2817; Ammonium Hydrogendifluoride, Solution; 8 (6.1); III; (E); CT1.
IMDG: UN2817; Ammonium Hydrogendifluoride Solution; 8 (6.1); III; EmS: F-A, S-B
IATA: UN2817 Ammonium Hydrogendifluoride Solution; 8 (6.1); III

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 China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. 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 product are in compliance with the chemical notification requirements of TSCA.

15.2. Chemical Safety Assessment

Not applicable

SECTION 16: Other information

List of relevant H statements

H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H412	Harmful to aquatic life with long lasting effects.

List of relevant R-phrases

R22	Harmful if swallowed.
R23	Toxic by inhalation.
R24	Toxic in contact with skin.
R25	Toxic if swallowed.
R34	Causes burns.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R52	Harmful to aquatic organisms.

Revision information:

Revision Changes:

Safety phrase information was modified.

Section 8: Personal Protection - Skin/body information information was modified.

Section 8: Skin protection - protective clothing information information was modified.

Section 01: 1.3. Details of the supplier of the safety data sheet heading information was modified.

Section 3: Composition/ Information of ingredients table information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12: Bioaccumulative potential information information was modified.
Section 14: Transportation classification information was modified.
Section 1: Address information was modified.
Copyright information was modified.
Section 11: Acute Toxicity table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: Additional Health Effects heading information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 11: Target Organs - Single Table information was modified.
Section 11: Health Effects - Skin information information was modified.
Section 11: Health Effects - Inhalation information information was modified.
Section 11: Health Effects - Ingestion information information was modified.
Section 5: Fire - Special hazards information information was modified.
Section 5: Fire - Advice for fire fighters information information was modified.
Section 6: Accidental release clean-up information information was modified.
Section 7: Precautions safe handling information information was modified.
Section 7: Conditions safe storage information was modified.
Section 8: Appropriate Engineering controls information information was modified.
Section 8: Personal Protection - Eye information information was modified.
Section 8: Personal Protection - Skin/hand information information was modified.
Section 8: Personal Protection - Respiratory Information information was modified.
Section 10: Hazardous Decomposition Products information information was modified.
Section 13: Standard Phrase Category Waste GHS information was modified.
Section 4: First aid for inhalation information information was modified.
Section 4: First aid for ingestion (swallowing) information 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 11: Single exposure may cause target organ effects heading information was modified.
Section 11: Prolonged or repeated exposure may cause target organ effects heading information was modified.
Label: Signal Word - Header information was added.
Label: Signal Word information was added.
Label: CLP Classification - Header information was added.
Label: CLP Classification information was added.
Label: CLP Classification information was added.
Label: CLP Classification - Header information was added.
Label: CLP Percent Unknown information was added.
Label: CLP Percent Unknown information was added.
Label: Graphic information was added.
Label: Graphic information was added.
Label: Symbol information was added.
Label: Symbol information was added.
Label: CLP Precautionary - Disposal information was added.
Label: CLP Precautionary - Disposal - Header information was added.
Label: CLP Precautionary - General information was added.
Label: CLP Precautionary - General - Header information was added.
Label: CLP Precautionary - Prevention information was added.
Label: CLP Precautionary - Prevention - Header information was added.
Label: CLP Precautionary - Response information was added.

Label: CLP Precautionary - Response - Header information was added.
Label: CLP Precautionary - Storage information was added.
Label: CLP Precautionary - Storage - Header information was added.
Label: Precautionary Statement - Header information was added.
CLP: Ingredient table information was added.
Section 2: Notes on labelling heading information was added.
Section 15: Label remarks and EU Detergent information was added.
CLP Remark(phrase) information was added.
Section 2: 2.2 & 2.3. CLP REGULATION heading information was added.
Label: CLP Ingredients table Ingredient heading information was added.
Label: CLP Ingredients table CAS No heading information was added.
Label: CLP Ingredients table Percent by Wt heading information was added.
Section 2: H phrase reference information was added.
Section 11: Disclosed components not in tables text information was added.
Section 12: Classification Warning information was added.
Section 11: Classification disclaimer information was added.
Section 11: Aspiration Hazard text information was added.
Section 8: 8.1.1 Biological limit values table heading information was added.
Section 8: BLV information was added.
Section 11: Respiratory Sensitization text information was added.
Section 11: Skin Sensitization table - Name heading information was added.
Section 11: Skin Sensitization table - Species heading information was added.
Section 11: Skin Sensitization table - Value heading information was added.
Section 11: Serious Eye Damage/Irritation table - Name heading information was added.
Section 11: Serious Eye Damage/Irritation table - Species heading information was added.
Section 11: Serious Eye Damage/Irritation table - Value heading information was added.
Section 11: Skin Corrosion/Irritation table - Name heading information was added.
Section 11: Skin Corrosion/Irritation table - Species heading information was added.
Section 11: Skin Corrosion/Irritation table - Value heading information was added.
Section 11: Germ Cell Mutagenicity table - Name heading information was added.
Section 11: Germ Cell Mutagenicity table - Route heading information was added.
Section 11: Germ Cell Mutagenicity table - Value heading information was added.
Section 11: Specific Target Organ Toxicity - repeated exposure table - Name heading information was added.
Section 11: Specific Target Organ Toxicity - repeated exposure table - Route heading information was added.
Section 11: Specific Target Organ Toxicity - repeated exposure table - Target Organ(s) heading information was added.
Section 11: Specific Target Organ Toxicity - repeated exposure table - Value heading information was added.
Section 11: Specific Target Organ Toxicity - repeated exposure table - Species heading information was added.
Section 11: Specific Target Organ Toxicity - repeated exposure table - Test Result heading information was added.
Section 11: Specific Target Organ Toxicity - repeated exposure table - Exposure Duration heading information was added.
Section 11: Specific Target Organ Toxicity - single exposure table - Name heading information was added.
Section 11: Specific Target Organ Toxicity - single exposure table - Route heading information was added.
Section 11: Specific Target Organ Toxicity - single exposure table - Target Organ(s) heading information was added.
Section 11: Specific Target Organ Toxicity - single exposure table - Value heading information was added.
Section 11: Specific Target Organ Toxicity - single exposure table - Species heading information was added.
Section 11: Specific Target Organ Toxicity - single exposure table - Test Result heading information was added.
Section 11: Specific Target Organ Toxicity - single exposure table - Exposure Duration heading information was added.
Section 11: Reproductive and/or Developmental Effects table - Name heading information was added.
Section 11: Reproductive and/or Developmental Effects table - Route heading information was added.
Section 11: Reproductive and/or Developmental Effects table - Value heading information was added.
Section 11: Reproductive and/or Developmental Effects table - Species heading information was added.
Section 11: Reproductive and/or Developmental Effects table - Test Result heading information was added.
Section 11: Reproductive and/or Developmental Effects text information was added.
Section 11: Carcinogenicity table - Name heading information was added.
Section 11: Carcinogenicity table - Route heading information was added.
Section 11: Carcinogenicity table - Species heading information was added.
Section 11: Carcinogenicity table - Value heading information was added.

Section 8: glove data - Material heading information was added.
Section 8: glove data - Thickness heading information was added.
Section 8: glove data - Breakthrough Time heading information was added.
Section 8: glove data value information was added.
Section 8: Skin protection - recommended gloves information information was deleted.
Section 11: Aspiration Hazard Table information was deleted.
Section 11: Classification disclaimer information was deleted.
Section 11: Exposure Duration table heading information was deleted.
Section 11: Respiratory Sensitization Table information was deleted.
Section 11: Test Result table heading information was deleted.
Section 11: Health Effects - Other information information was deleted.
Section 12: Classification Warning information was deleted.

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