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
3M™ Marine Metal Restorer and Polish, 09019

Product Identification Numbers
KS-9990-0586-5

7000035359

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

Identified uses
Marine

1.3. Details of the supplier of the safety data sheet

Address:	3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
Telephone:	+44 (0)1344 858 000
E Mail:	tox.uk@mmm.com
Website:	www.3M.com/uk

1.4. Emergency telephone number
+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
CLP REGULATION (EC) No 1272/2008

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.
The aspiration hazard classification is not required due to the product's viscosity.

CLASSIFICATION:
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319

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:

H315	Causes skin irritation.
H319	Causes serious eye irritation.

PRECAUTIONARY STATEMENTS
General:

P102	Keep out of reach of children.

2.3. Other hazards

None known.
This material does not contain any substances that are assessed to be a PBT or vPvB

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Non-Hazardous Ingredients	Mixture	30 - 60	Substance not classified as hazardous
Aluminium Oxide (non-fibrous)	(CAS-No.) 1344-28-1 (EC-No.) 215-691-6	30 - 60	Substance with a national occupational exposure limit
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	(EC-No.) 926-141-6	10 - 30	Asp. Tox. 1, H304 EUH066
ammonia	(CAS-No.) 1336-21-6 (EC-No.) 215-647-6	1 - 2.5	Skin Corr. 1B, H314 STOT SE 3, H335 Aquatic Acute 1, H400,M=1 Nota B

			Met. Corr. 1, H290
Oleic Acid	(CAS-No.) 112-80-1 (EC-No.) 204-007-1	5 - 15	Substance not classified as hazardous
Iron(III) oxide	(CAS-No.) 1309-37-1 (EC-No.) 215-168-2	0.04 - 0.5	Substance with a national occupational exposure limit
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	(EC-No.) 920-107-4	1 - 5	Asp. Tox. 1, H304 EUH066
AMIDES, RAPE-OIL, N-(HYDROXYETHYL), ETHOXYLATED	Trade Secret	0.1 - 1	Substance not classified as hazardous

Any entry in the Identifier(s) column that begins with the numbers 6, 7, 8, or 9 are a Provisional List Number provided by ECHA pending publication of the official EC Inventory Number for the substance.
Please see section 16 for the full text of any H statements referred to in this section

Specific Concentration Limits

Ingredient	Identifier(s)	Specific Concentration Limits
ammonia	(CAS-No.) 1336-21-6 (EC-No.) 215-647-6	(C >= 5%) STOT SE 3, H335

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
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, 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
No critical symptoms or effects. 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
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During combustion.
Carbon dioxide.	During combustion.

5.3. Advice for fire-fighters
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, 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. 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.

6.3. Methods and material for containment and cleaning up
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. 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
Keep out of reach of children. Avoid breathing 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. 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 oxidising agents. Store away from areas where product may come into contact with food or pharmaceuticals.

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
Iron(III) oxide	1309-37-1	UK HSC	TWA(respirable):4 mg/m3;TWA(Inhalable):10 mg/m3;TWA(as Fe, fume):5 mg/m3;STEL(as Fe, fume):10 mg/m3	
Ammonia released from ammonium hydroxide/aqueous ammonia solutions	1336-21-6	UK HSC	TWA:18 mg/m3(25 ppm);STEL:25 mg/m3(35 ppm)	
Aluminium Oxide (non-fibrous)	1344-28-1	UK HSC	TWA(as respirable dust):4 mg/m3;TWA(as inhalable dust):10 mg/m3	

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.

Recommended monitoring procedures: Information on recommended monitoring procedures can be obtained from UK HSC

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

Material	Thickness (mm)	Breakthrough Time
Fluoroelastomer	0.4	=>8 hours

The glove data presented are based on the substance driving dermal toxicity and the conditions present at the time of testing. Breakthrough time may be altered when the glove is subjected to use conditions that place additional stress on the glove.

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	Solid.
Specific Physical Form:	Paste
Colour	Pink
Odor	Slight Ammoniacal
Odour threshold	*No data available.*
Melting point/freezing point	*No data available.*
Boiling point/boiling range	70 ºC
Flammability (solid, gas)	Not classified
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Flash point	>=93.3 ºC [*Test Method:*Closed Cup]
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
pH	approximately 9.4 Units not available or not applicable.
Kinematic Viscosity	*No data available.*
Water solubility	Moderate
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Vapour pressure	*No data available.*
Density	1.09 g/ml
Relative density	1.09 [*Ref Std:*WATER=1]
Relative Vapor Density	*No data available.*

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	*No data available.*
Evaporation rate	>=1 [*Ref Std:*WATER=1]
Molecular weight	*No data available.*
Percent volatile	58 % weight

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
None known.

10.5 Incompatible materials
Strong oxidising agents.

10.6 Hazardous decomposition products

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

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 internal hazard assessments.

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

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

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	Inhalation-Vapour(4 hr)		No data available; calculated ATE >50 mg/l
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
Oleic Acid	Dermal	Guinea pig	LD50 > 3,000 mg/kg
Oleic Acid	Ingestion	Rat	LD50 57,000 mg/kg
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Inhalation-Vapour	Professional judgement	LC50 estimated to be 20 - 50 mg/l
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Dermal	Rabbit	LD50 > 5,000 mg/kg
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Ingestion	Rat	LD50 > 5,000 mg/kg
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Inhalation-Vapour	Professional judgement	LC50 estimated to be 20 - 50 mg/l
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Dermal	Rabbit	LD50 > 5,000 mg/kg
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Ingestion	Rat	LD50 > 5,000 mg/kg
ammonia	Ingestion	Rat	LD50 350 mg/kg
Iron(III) oxide	Dermal	Not available	LD50 3,100 mg/kg
Iron(III) oxide	Ingestion	Not available	LD50 3,700 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Aluminium Oxide (non-fibrous)	Rabbit	No significant irritation
Oleic Acid	Rabbit	Minimal irritation
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Rabbit	Minimal irritation
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Rabbit	Minimal irritation
ammonia	Rabbit	Corrosive
Iron(III) oxide	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Aluminium Oxide (non-fibrous)	Rabbit	No significant irritation
Oleic Acid	Rabbit	Mild irritant
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Rabbit	Mild irritant
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Rabbit	Mild irritant
ammonia	Rabbit	Corrosive
Iron(III) oxide	Rabbit	No significant irritation

Skin Sensitisation

Name	Species	Value
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Guinea pig	Not classified
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Guinea pig	Not classified
Iron(III) oxide	Human	Not classified

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
Oleic Acid	In Vitro	Some positive data exist, but the data are not sufficient for classification
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	In Vitro	Not mutagenic
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	In vivo	Not mutagenic
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	In Vitro	Not mutagenic
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	In vivo	Not mutagenic
Iron(III) oxide	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Aluminium Oxide (non-fibrous)	Inhalation	Rat	Not carcinogenic
Oleic Acid	Dermal	Mouse	Not carcinogenic
Oleic Acid	Ingestion	Rat	Not carcinogenic
Oleic Acid	Not specified.	Multiple animal species	Not carcinogenic
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Not specified.	Not available	Not carcinogenic
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Not specified.	Not available	Not carcinogenic
Iron(III) oxide	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Not specified.	Not classified for female reproduction	Rat	NOAEL Not available	1 generation
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Not specified.	Not classified for female reproduction	Rat	NOAEL Not available	premating & during gestation
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Not specified.	Not classified for male reproduction	Rat	NOAEL Not available	28 days
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Not specified.	Not classified for male reproduction	Rat	NOAEL Not available	1 generation
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Not specified.	Not classified for development	Rat	NOAEL Not available	during gestation
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Not specified.	Not classified for development	Rat	NOAEL Not available	1 generation
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Not specified.	Not classified for female reproduction	Rat	NOAEL Not available	1 generation
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Not specified.	Not classified for female reproduction	Rat	NOAEL Not available	premating & during gestation
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Not specified.	Not classified for male reproduction	Rat	NOAEL Not available	28 days
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Not specified.	Not classified for male reproduction	Rat	NOAEL Not available	1 generation
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Not specified.	Not classified for development	Rat	NOAEL Not available	during gestation
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Not specified.	Not classified for development	Rat	NOAEL Not available	1 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
ammonia	Inhalation	respiratory irritation	May cause respiratory irritation	Human	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
Oleic Acid	Ingestion	liver | immune system	Not classified	Rat	NOAEL 2,250 mg/kg/day	108 weeks
Oleic Acid	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 2,550 mg/kg/day	108 weeks
Iron(III) oxide	Inhalation	pulmonary fibrosis | pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

Name	Value
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	Aspiration hazard
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Aspiration hazard

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.

11.2. Information on other hazards

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

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
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Green algae	Estimated	72 hours	EL50	>1,000 mg/l
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics,	926-141-6	Rainbow trout	Estimated	96 hours	LL50	>1,000 mg/l

<2% aromatics						
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Water flea	Estimated	48 hours	EL50	>1,000 mg/l
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Green algae	Experimental	72 hours	EL50	>1,000 mg/l
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Rainbow trout	Experimental	96 hours	LL50	>1,000 mg/l
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Water flea	Experimental	48 hours	EL50	>1,000 mg/l
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Green algae	Estimated	72 hours	NOEL	1,000 mg/l
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Green algae	Experimental	72 hours	NOEL	1,000 mg/l
ammonia	1336-21-6	Algae or other aquatic plants	Estimated	72 hours	IC50	21.5 mg/l
ammonia	1336-21-6	Fish	Estimated	96 hours	LC50	3.5 mg/l
ammonia	1336-21-6	Grass Shrimp	Estimated	48 hours	EC50	20 mg/l
ammonia	1336-21-6	Algae or other aquatic plants	Estimated	72 hours	NOEC	1.5 mg/l
ammonia	1336-21-6	Bluegill	Estimated	32 days	NOEC	4.1 mg/l
ammonia	1336-21-6	Water flea	Estimated	21 days	NOEC	49.2 mg/l
Oleic Acid	112-80-1		Data not available or insufficient for classification			N/A
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	920-107-4	Green algae	Estimated	72 hours	EL50	>1,000 mg/l
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	920-107-4	Rainbow trout	Estimated	96 hours	LL50	>1,000 mg/l
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	920-107-4	Water flea	Estimated	48 hours	EL50	>1,000 mg/l
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	920-107-4	Green algae	Experimental	72 hours	EL50	>1,000 mg/l
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	920-107-4	Rainbow trout	Experimental	96 hours	LL50	>1,000 mg/l
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	920-107-4	Water flea	Experimental	48 hours	EL50	>1,000 mg/l
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, <	920-107-4	Green algae	Estimated	72 hours	NOEL	1,000 mg/l

2% aromatics						
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	920-107-4	Green algae	Experimental	72 hours	NOEL	1,000 mg/l
Iron(III) oxide	1309-37-1	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Iron(III) oxide	1309-37-1	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
Iron(III) oxide	1309-37-1	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Iron(III) oxide	1309-37-1	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Iron(III) oxide	1309-37-1	Water flea	Experimental	21 days	No tox obs at lmt of water sol	>100 mg/l
Iron(III) oxide	1309-37-1	Activated sludge	Experimental	3 hours	EC50	>10,000 mg/l
AMIDES, RAPE-OIL, N-(HYDROXYETHYL), ETHOXYLATED	Trade Secret	Activated sludge	Estimated	3 hours	NOEC	>100 mg/l
AMIDES, RAPE-OIL, N-(HYDROXYETHYL), ETHOXYLATED	Trade Secret	Diatom	Estimated	72 hours	EC50	>100 mg/l
AMIDES, RAPE-OIL, N-(HYDROXYETHYL), ETHOXYLATED	Trade Secret	Green algae	Estimated	72 hours	NOEC	4.9 mg/l
AMIDES, RAPE-OIL, N-(HYDROXYETHYL), ETHOXYLATED	Trade Secret	Rainbow trout	Estimated	96 hours	LC50	2.9 mg/l
AMIDES, RAPE-OIL, N-(HYDROXYETHYL), ETHOXYLATED	Trade Secret	Water flea	Estimated	48 hours	EC50	3.8 mg/l
AMIDES, RAPE-OIL, N-(HYDROXYETHYL), ETHOXYLATED	Trade Secret	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
AMIDES, RAPE-OIL, N-(HYDROXYETHYL), ETHOXYLATED	Trade Secret	Green algae	Experimental	72 hours	EC50	410 mg/l
AMIDES, RAPE-OIL, N-(HYDROXYETHYL), ETHOXYLATED	Trade Secret	Rainbow trout	Experimental	96 hours	LC50	2.9 mg/l
AMIDES, RAPE-OIL, N-(HYDROXYETHYL), ETHOXYLATED	Trade Secret	Water flea	Experimental	48 hours	EC50	3.8 mg/l
AMIDES, RAPE-OIL, N-(HYDROXYETHYL), ETHOXYLATED	Trade Secret	Green algae	Experimental	72 hours	NOEC	4.9 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 availbl-insufficient	N/A	N/A	N/A	N/A
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Experimental Biodegradation	28 days	BOD	69 %BOD/ThBOD	OECD 301F - Manometric respirometry

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Estimated Biodegradation	28 days	BOD	67.6 %BOD/ThBOD	OECD 301F - Manometric respirometry
ammonia	1336-21-6	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Oleic Acid	112-80-1	Experimental Biodegradation	28 days	BOD	78 %BOD/ThBOD	OECD 301C - MITI test (I)
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	920-107-4	Experimental Biodegradation	28 days	BOD	69 %BOD/ThBOD	OECD 301F - Manometric respirometry
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	920-107-4	Estimated Biodegradation	28 days	BOD	67.6 %BOD/ThBOD	OECD 301F - Manometric respirometry
Iron(III) oxide	1309-37-1	Data not availbl-insufficient	N/A	N/A	N/A	N/A
AMIDES, RAPE-OIL, N-(HYDROXYETHYL), ETHOXYLATED	Trade Secret	Estimated Biodegradation	28 days	CO2 evolution	96 %CO2 evolution/THCO2 evolution (does not pass 10-day window)	OECD 301B - Modified sturm or CO2
AMIDES, RAPE-OIL, N-(HYDROXYETHYL), ETHOXYLATED	Trade Secret	Experimental Biodegradation	28 days	CO2 evolution	96 % weight	OECD 301B - Modified sturm or CO2

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
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	926-141-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
ammonia	1336-21-6	Estimated Bioconcentration		Log Kow	-1.14	Non-standard method
Oleic Acid	112-80-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	920-107-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, < 2% aromatics	920-107-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Iron(III) oxide	1309-37-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
AMIDES, RAPE-OIL, N-(HYDROXYETHYL), ETHOXYLATED	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
AMIDES, RAPE-OIL, N-(HYDROXYETHYL), ETHOXYLATED	Trade Secret	Experimental Bioconcentration		Log Kow	>2.57	Non-standard method

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
Oleic Acid	112-80-1	Estimated Mobility in Soil	Koc	1,600 l/kg	ACD/Labs ChemSketch™

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. Endocrine disrupting properties

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

12.7. Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. 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 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC 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)
120109* Machining emulsions and solutions free of halogens

SECTION 14: Transportation information

Not hazardous for transportation.

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number or ID number	No data available.	No data available.	No data available.
14.2 UN proper shipping name	No data available.	No data available.	No data available.
14.3 Transport hazard class(es)	No data available.	No data available.	No data available.
14.4 Packing group	No data available.	No data available.	No data available.
14.5 Environmental hazards	No data available.	No data available.	No data available.

14.6 Special precautions for user	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Marine Transport in bulk according to IMO instruments	No data available.	No data available.	No data available.
Control Temperature	No data available.	No data available.	No data available.
Emergency Temperature	No data available.	No data available.	No data available.
ADR Classification Code	No data available.	No data available.	No data available.
IMDG Segregation Code	No data available.	No data available.	No data available.

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

SECTION 15: Regulatory information

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

Carcinogenicity

Ingredient	CAS Nbr	Classification	Regulation
Iron(III) oxide	1309-37-1	Gr. 3: Not classifiable	International Agency for Research on Cancer

Global inventory status

Contact 3M 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 Japan Chemical Substance 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 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. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

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Seveso hazard categories, Annex 1, Part 1
None

Seveso named dangerous substances, Annex 1, Part 2

Dangerous Substances	Identifier(s)	Qualifying quantity (tonnes) for the application of	
		Lower-tier requirements	Upper-tier requirements
ammonia	1336-21-6	50	200
ammonia	1336-21-6	100	200

15.2. Chemical Safety Assessment
A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended.

SECTION 16: Other information

List of relevant H statements

EUH066	Repeated exposure may cause skin dryness or cracking.
H290	May be corrosive to metals.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

Revision information:
EU Section 09: pH information information was added.
CLP Remark(phrase) information was deleted.
Label: CLP Classification information was modified.
Label: CLP Precautionary - Response information was deleted.
Section 03: Composition table % Column heading information was added.
Section 3: Composition/ Information of ingredients table information was modified.
Section 03: SCL table information was added.
Section 03: Substance not applicable information was added.
Section 04: Information on toxicological effects information was modified.
Section 8: glove data value information was modified.
Section 9: Evaporation Rate information information was deleted.
Section 9: Explosive properties information information was deleted.
Section 09: Kinematic Viscosity information information was added.
Section 9: Melting point information information was modified.
Section 9: Oxidising properties information information was deleted.
Section 9: pH information information was deleted.
Section 9: Property description for optional properties information was modified.
Section 9: Vapor density text information was added.
Section 9: Vapor density text information was deleted.
Section 9: Viscosity information information was deleted.
Section 11: Classification disclaimer information was modified.
Section 11: No endocrine disruptor information available warning information was added.
Section 11: Target Organs - Repeated Table information was added.
Section 11: Target Organs - Repeated Table information was deleted.
Section 12: 12.6. Endocrine Disrupting Properties information was added.
Section 12: 12.7. Other adverse effects information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Contact manufacturer for more detail. information was deleted.
Section 12: Mobility in soil information information was added.
Section 12: No endocrine disruptor information available warning information was added.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.

Section 14 Classification Code – Main Heading information was added.
Section 14 Classification Code – Regulation Data information was added.
Section 14 Control Temperature – Main Heading information was added.
Section 14 Control Temperature – Regulation Data information was added.
Section 14 Disclaimer Information information was added.
Section 14 Emergency Temperature – Main Heading information was added.
Section 14 Emergency Temperature – Regulation Data information was added.
Section 14 Hazard Class + Sub Risk – Main Heading information was added.
Section 14 Hazard Class + Sub Risk – Regulation Data information was added.
Section 14 Hazardous/Not Hazardous for Transportation information was added.
Section 14 Other Dangerous Goods – Main Heading information was added.
Section 14 Other Dangerous Goods – Regulation Data information was added.
Section 14 Packing Group – Main Heading information was added.
Section 14 Packing Group – Regulation Data information was added.
Section 14 Proper Shipping Name information was added.
Section 14 Regulations – Main Headings information was added.
Section 14 Segregation – Regulation Data information was added.
Section 14 Segregation Code – Main Heading information was added.
Section 14 Special Precautions – Main Heading information was added.
Section 14 Special Precautions – Regulation Data information was added.
Section 14 Transport in bulk – Regulation Data information was added.
Section 14 Marine transport in bulk according to IMO instruments – Main Heading information was added.
Section 14 UN Number Column data information was added.
Section 14 UN Number information was added.
Section 15: Regulations - Inventories information was added.
Section 15: Seveso Substance Text information was added.
Section 2: No PBT/vPvB information available warning information was added.

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. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

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