



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Malaysia Occupational Safety and Health (Chemical Classification, Labelling and Safety Data Sheets) Regulations 2013.

SECTION 1: Identification

1.1. Product identifier

3M™ Stainless Steel Cleaner & Polish

Product Identification Numbers

61-5000-6132-2	70-0713-1355-8	70-0713-1493-7	AN-0105-5780-7	RN-0009-4013-0
UU-0092-2904-6	XE-0008-0101-1	XN-0042-2614-0	XN-0042-4273-3	XN-0042-4289-9
XN-1015-5591-2	XN-1015-7536-5			

1.2. Recommended use and restrictions on use

Recommended use

Metal Polish, Cleans and polishes stainless steel, chrome, aluminum and laminated plastic surfaces.

1.3. Supplier's details

ADDRESS: 3M Malaysia Sdn. Bhd., Level 8, Block F, Oasis Square, No.2, Jalan PJU 1A/7A, Ara Damansara 47301
Petaling, Jaya, Selangor
Telephone: 03-7884 2888
E Mail: 3mmyehsr@mmm.com
Website: www.3M.com.my

1.4. Emergency telephone number

+60 03-7884 2888

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Flammable Aerosol: Category 1.

Gas Under Pressure: Liquefied gas.

Specific Target Organ Toxicity (single exposure): Category 1.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Gas cylinder | Health Hazard |

Pictograms



Hazard Statements

H222	Extremely flammable aerosol.
H280	Contains gas under pressure; may explode if heated.
H370	Causes damage to organs: cardiovascular system

Precautionary statements

General:

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

Prevention:

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.

Response:

P307 + P311	IF exposed: Call a POISON CENTER or doctor/physician.
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Storage:

P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50C/122F.
P403	Store in a well-ventilated place.
P405	Store locked up.

Disposal:

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

Intentional misuse by deliberately concentrating and inhaling contents can be harmful or fatal.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Non-hazardous ingredients	Mixture	40 - 70
WHITE MINERAL OIL (PETROLEUM)	8042-47-5	10 - 30
Isobutane	75-28-5	7 - 13
Sorbitan Oleate	1338-43-8	0.5 - 1.5
Ethanolamine	141-43-5	0.1 - 1

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. Get medical attention.

Skin Contact:

Wash with soap and water. If you feel unwell, get medical attention.

Eye Contact:

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, 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

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide

Carbon dioxide

Condition

During Combustion

During Combustion

5.3. Special protective actions 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. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools.

Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. 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

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available

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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 using non-sparking tools. 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 in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapors/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 contact with oxidizing agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Protect from sunlight. Store in a well-ventilated place. Store away from heat. Store away from acids. Store away from oxidizing agents.

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	C.A.S. No.	Agency	Limit type	Additional Comments
Ethanolamine	141-43-5	ACGIH	TWA:3 ppm;STEL:6 ppm	
Ethanolamine	141-43-5	Malaysia OELs	TWA(8 hours):7.5 mg/m3(3 ppm)	
Isobutane	75-28-5	ACGIH	STEL:1000 ppm	
Natural gas	75-28-5	ACGIH	Limit value not established:	simple asphyxiant
MINERAL OILS, HIGHLY-REFINED OILS	8042-47-5	ACGIH	TWA(inhalable fraction):5 mg/m3	A4: Not class. as human carcin
OIL MIST, MINERAL	8042-47-5	Malaysia OELs	TWA(as mist)(8 hours):5 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists

CMRG : Chemical Manufacturer's Recommended Guidelines

Malaysia OELs : Malaysia. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

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/vapors/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

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Indirect Vented Goggles

Skin/hand protection

No chemical protective gloves are required.

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 vapors and particulates

Half facepiece or full facepiece supplied-air respirator

Organic vapor respirators may have short service life.

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
Specific Physical Form:	Aerosol
Appearance/Odor	Thick white emulsion citrus odor
Odor threshold	No Data Available
pH	9 - 11
Melting point/Freezing point	Not Applicable
Boiling point/Initial boiling point/Boiling range	> 100 °C
Flash Point	No Data Available
Flash Point	No flash point
Evaporation rate	No Data Available
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	No Data Available
Flammable Limits(UEL)	No Data Available
Vapor Density	No Data Available
Density	0.95 g/ml
Relative Density	0.92 - 0.98 [Ref Std: WATER=1]
Water solubility	Complete
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	1,400 - 4,500 mPa-s [Details:For Liquid]
Molecular weight	No Data Available
Volatile Organic Compounds	10 - 12 % weight [Test Method:calculated per CARB title 2]
Percent volatile	75 - 80 % weight
VOC Less H2O & Exempt Solvents	265 - 295 g/l [Test Method:calculated per CARB title 2]

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 polymerization will not occur.

10.4. Conditions to avoid

Heat

Sparks and/or flames

10.5. Incompatible materials

Strong oxidizing agents

Strong acids

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 be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

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:

May cause additional health effects (see below).

Skin Contact:

Contact with the skin during product use is not expected to result in significant irritation.

Eye Contact:

Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion:

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

Additional Health Effects:

Single exposure may cause target organ effects:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

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

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Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Dust/Mist(4 hr)		No data available; calculated ATE >12.5 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
WHITE MINERAL OIL (PETROLEUM)	Dermal	Rabbit	LD50 > 2,000 mg/kg
WHITE MINERAL OIL (PETROLEUM)	Ingestion	Rat	LD50 > 5,000 mg/kg
Isobutane	Inhalation-Gas (4 hours)	Rat	LC50 276,000 ppm
Sorbitan Oleate	Dermal		LD50 estimated to be > 5,000 mg/kg
Sorbitan Oleate	Ingestion	Rat	LD50 > 39,800 mg/kg
Ethanolamine	Inhalation-Vapor	official classification	LC50 estimated to be 10 - 20 mg/l
Ethanolamine	Dermal	Rabbit	LD50 1,000 mg/kg
Ethanolamine	Ingestion	Rat	LD50 1,720 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
WHITE MINERAL OIL (PETROLEUM)	Rabbit	No significant irritation
Isobutane	Professional judgement	No significant irritation
Ethanolamine	Rabbit	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
WHITE MINERAL OIL (PETROLEUM)	Rabbit	Mild irritant
Isobutane	Professional judgement	No significant irritation
Ethanolamine	Rabbit	Corrosive

Skin Sensitization

Name	Species	Value
WHITE MINERAL OIL (PETROLEUM)	Guinea pig	Not classified
Ethanolamine	Guinea pig	Not classified

Respiratory Sensitization

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

Germ Cell Mutagenicity

Name	Route	Value
WHITE MINERAL OIL (PETROLEUM)	In Vitro	Not mutagenic
Isobutane	In Vitro	Not mutagenic
Ethanolamine	In Vitro	Not mutagenic
Ethanolamine	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
WHITE MINERAL OIL (PETROLEUM)	Dermal	Mouse	Not carcinogenic

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WHITE MINERAL OIL (PETROLEUM)	Inhalation	Multiple animal species	Not carcinogenic
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Reproductive Toxicity**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
WHITE MINERAL OIL (PETROLEUM)	Ingestion	Not classified for female reproduction	Rat	NOAEL 4,350 mg/kg/day	13 weeks
WHITE MINERAL OIL (PETROLEUM)	Ingestion	Not classified for male reproduction	Rat	NOAEL 4,350 mg/kg/day	13 weeks
WHITE MINERAL OIL (PETROLEUM)	Ingestion	Not classified for development	Rat	NOAEL 4,350 mg/kg/day	during gestation
Ethanolamine	Dermal	Not classified for development	Rat	NOAEL 225 mg/kg/day	during organogenesis
Ethanolamine	Ingestion	Not classified for development	Rat	NOAEL 616 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
Isobutane	Inhalation	cardiac sensitization	Causes damage to organs	Multiple animal species	NOAEL Not available	
Isobutane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Isobutane	Inhalation	respiratory irritation	Not classified	Mouse	NOAEL Not available	
Ethanolamine	Inhalation	respiratory irritation	May cause respiratory irritation	Human and animal	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
WHITE MINERAL OIL (PETROLEUM)	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 1,381 mg/kg/day	90 days
WHITE MINERAL OIL (PETROLEUM)	Ingestion	liver immune system	Not classified	Rat	NOAEL 1,336 mg/kg/day	90 days
Isobutane	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 4,500 ppm	13 weeks
Ethanolamine	Inhalation	liver kidney and/or bladder respiratory system	Not classified	Multiple animal species	NOAEL 0.656 mg/l	5 weeks
Ethanolamine	Ingestion	hematopoietic system liver kidney and/or bladder respiratory system	Not classified	Rat	NOAEL Not available	

Aspiration Hazard

Name	Value
WHITE MINERAL OIL (PETROLEUM)	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.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labeling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:

Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
WHITE MINERAL OIL (PETROLEUM)	8042-47-5	Water flea	Estimated	48 hours	Effect Level 50%	>100 mg/l
WHITE MINERAL OIL (PETROLEUM)	8042-47-5	Bluegill	Experimental	96 hours	Lethal Level 50%	>100 mg/l
WHITE MINERAL OIL (PETROLEUM)	8042-47-5	Green algae	Estimated	72 hours	No obs Effect Level	>100 mg/l
WHITE MINERAL OIL (PETROLEUM)	8042-47-5	Water flea	Estimated	21 days	No obs Effect Level	>100 mg/l
Isobutane	75-28-5		Data not available or insufficient for classification			
Sorbitan Oleate	1338-43-8	Rainbow Trout	Experimental	96 hours	Lethal Concentration 50%	>100 mg/l
Ethanolamine	141-43-5	Common Carp	Experimental	96 hours	Lethal Concentration 50%	349 mg/l
Ethanolamine	141-43-5	Green Algae	Experimental	72 hours	Effect Concentration 50%	2.5 mg/l

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Ethanolamine	141-43-5	Water flea	Experimental	48 hours	Effect Concentration 50%	65 mg/l
Ethanolamine	141-43-5	Green algae	Experimental	72 hours	No obs Effect Conc	1 mg/l
Ethanolamine	141-43-5	Ricefish	Experimental	41 days	No obs Effect Conc	1.24 mg/l
Ethanolamine	141-43-5	Water flea	Experimental	21 days	No obs Effect Conc	0.85 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
WHITE MINERAL OIL (PETROLEUM)	8042-47-5	Experimental Biodegradation	28 days	Carbon dioxide evolution	0 % weight	OECD 301B - Mod. Sturm or CO2
Isobutane	75-28-5	Experimental Photolysis		Photolytic half-life (in air)	13.4 days (t 1/2)	Other methods
Sorbitan Oleate	1338-43-8	Estimated Biodegradation	28 days	Biological Oxygen Demand	68 % weight	OECD 301B - Mod. Sturm or CO2
Ethanolamine	141-43-5	Experimental Biodegradation	21 days	Dissolv. Organic Carbon Deplet	>90 % weight	OECD 301A - DOC Die Away Test

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
WHITE MINERAL OIL (PETROLEUM)	8042-47-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Isobutane	75-28-5	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	2.76	Other methods
Sorbitan Oleate	1338-43-8	Estimated Bioconcentration		Bioaccumulation Factor	7.8	Est: Bioconcentration factor
Ethanolamine	141-43-5	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	-2.3	Other methods

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 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. Disposal methods

According to the Environmental Quality (Scheduled Wastes) Regulations 2005, scheduled waste has to be sent to a prescribed premise for recycling, treatment or disposal. Please approach Kualiti Alam for proper schedule waste classification and disposal.

SECTION 14: Transport Information

Marine Transport (IMDG)

UN Number:UN1950

Proper Shipping Name:AEROSOLS, FLAMMABLE

Technical Name:None assigned.

Hazard Class/Division:2.1

Subsidiary Risk:None assigned.

Packing Group:None assigned.

Limited Quantity:Yes

Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

None assigned.

Air Transport (IATA)

UN Number:UN1950

Proper Shipping Name:AEROSOLS, FLAMMABLE

Technical Name:None assigned.

Hazard Class/Division:2.1

Subsidiary Risk:None assigned.

Packing Group:None assigned.

Limited Quantity:None assigned.

Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

None assigned.

Transportation classifications are provided as a customer service. As for shipping, YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling or marking requirements. The above information is only for reference. If you are shipping by air or ocean, YOU are advised to check & meet applicable regulatory requirements.

SECTION 15: Regulatory information

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

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

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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. The components of this product are in compliance with the chemical notification requirements of TSCA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory.

SECTION 16: Other information

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.

3M Malaysia SDSs are available at www.3M.com.my