



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™ Heavy Duty Wheel Cleaner, 38374, 38375

Product Identification Numbers

60-4550-5833-3 60-4550-5834-1

1.2. Recommended use and restrictions on use

Recommended use

Automotive, Wheel Cleaner

For Industrial or Professional use only

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

Corrosive to metal: Category 1.
Acute Toxicity (oral): Category 4.
Skin Corrosion/Irritation: Category 1.
Serious Eye Damage/Irritation: Category 1.
Specific Target Organ Toxicity (single exposure): Category 3.

2.2. Label elements

Signal word

Danger

Symbols

Corrosion | Exclamation mark |

Pictograms



Hazard Statements:

- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H335 May cause respiratory irritation.

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 packaging.
- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 Wash thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P280D Wear protective gloves, protective clothing, and eye/face protection.

Response:

- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or 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 CENTER or doctor/physician.

Storage:

- P405 Store locked up.

Disposal:

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

2.3. Other hazards

May cause chemical gastrointestinal burns.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Water	7732-18-5	60 - 100
Ammonium Bifluoride	1341-49-7	7 - 13
Sodium Xylene Sulfonate	1300-72-7	1 - 5
Ethoxylated C9-11 Alcohols	68439-46-3	< 2

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 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

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. Suitable 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

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Fluoride	During Combustion
Irritant Vapors or Gases	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. 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. 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 dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

Contain spill. For large spills, if necessary, get assistance from professional spill clean up team. For small spills, carefully neutralize spill by adding appropriate dilute acid such as vinegar. Work slowly to avoid boiling or spattering. Continue to add

neutralizing agent until reaction stops. Let cool before collecting. Or use a commercially available caustic (alkaline or basic) spill clean-up kit. Follow kit directions exactly. 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 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. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Cover, but do not seal for 48 hours. 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

Do not breathe thermal decomposition products. Keep out of reach of children. 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 release to the environment. Wash contaminated clothing before reuse. 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. Keep container tightly closed. Store away from heat. Keep only in original container. Store in a corrosive resistant container with a resistant inner liner. Store away from acids. Store away from strong bases. 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
FLUORIDES	1341-49-7	ACGIH	TWA(as F):2.5 mg/m3	A4: Not class. as human carcin
FLUORIDES	1341-49-7	Malaysia OELs	TWA(as F)(8 hours):2.5 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

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/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

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: Butyl Rubber

Neoprene

Nitrile Rubber

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: Boots - Nitrile

Apron – Butyl rubber

Apron - Neoprene

Apron – Nitrile

Boots - 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 vapors 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
Color	Purple
Odor	Sweet Odor
Odor threshold	<i>No Data Available</i>
pH	4.5 - 5.5
Melting point/Freezing point	<i>No Data Available</i>
Boiling point/Initial boiling point/Boiling range	98.9 °C
Flash Point	Flash point > 93 °C (200 °F) [<i>Test Method: Closed Cup</i>]
Evaporation rate	<i>No Data Available</i>
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	<i>No Data Available</i>
Flammable Limits(UEL)	<i>No Data Available</i>
Vapor Pressure	<i>No Data Available</i>
Vapor Density and/or Relative Vapor Density	<i>No Data Available</i>
Density	1.04 g/ml
Relative Density	1.04 [<i>Ref Std: WATER=1</i>]
Water solubility	Complete
Solubility- non-water	<i>No Data Available</i>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>

Autoignition temperature	<i>No Data Available</i>
Decomposition temperature	<i>No Data Available</i>
Viscosity/Kinematic Viscosity	1 mPa-s [<i>Details: Approximate</i>]
Volatile Organic Compounds	2 g/l [<i>Test Method: calculated SCAQMD rule 443.1</i>]
Volatile Organic Compounds	0.1 % weight [<i>Test Method: calculated per CARB title 2</i>]
Percent volatile	78.8 % weight
VOC Less H2O & Exempt Solvents	6 g/l [<i>Test Method: calculated SCAQMD rule 443.1</i>]

Nanoparticles

This material does not contain nanoparticles.

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

10.5. Incompatible materials

Strong acids

Strong bases

Strong oxidizing agents

Reacts with metal/glass to form Hydrofluoric acid

10.6. Hazardous decomposition products**Substance****Condition**

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

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 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 be harmful if inhaled. Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin Contact:

Corrosive (Skin Burns): Signs/symptoms may include localized 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.

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 feces and/or vomitus may also be seen.

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-Dust/Mist(4 hr)		No data available; calculated ATE5 - 12.5 mg/l
Overall product	Ingestion		No data available; calculated ATE300 - 2,000 mg/kg
Ammonium Bifluoride	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.74 mg/l
Ammonium Bifluoride	Ingestion	Rat	LD50 60 mg/kg
Sodium Xylene Sulfonate	Dermal	Rabbit	LD50 > 2,000 mg/kg
Sodium Xylene Sulfonate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.4 mg/l
Sodium Xylene Sulfonate	Ingestion	Rat	LD50 7,200 mg/kg
Ethoxylated C9-11 Alcohols	Dermal	Rabbit	LD50 > 2,000 mg/kg
Ethoxylated C9-11 Alcohols	Ingestion	Rat	LD50 1,378 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Sodium Xylene Sulfonate	Rabbit	Minimal irritation
Ethoxylated C9-11 Alcohols	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
Sodium Xylene Sulfonate	Rabbit	Moderate irritant
Ethoxylated C9-11 Alcohols	Professional judgement	Corrosive

Sensitization:**Skin Sensitization**

Name	Species	Value
Sodium Xylene Sulfonate	Guinea pig	Not classified
Ethoxylated C9-11 Alcohols	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
Sodium Xylene Sulfonate	In Vitro	Not mutagenic
Ethoxylated C9-11 Alcohols	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Sodium Xylene Sulfonate	Dermal	Multiple animal species	Not carcinogenic

Reproductive Toxicity**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
Sodium Xylene Sulfonate	Ingestion	Not classified for development	Rabbit	NOAEL 1,000 mg/kg/day	during gestation
Ethoxylated C9-11 Alcohols	Dermal	Not classified for female reproduction	Rat	NOAEL 250 mg/kg/day	2 generation
Ethoxylated C9-11 Alcohols	Dermal	Not classified for development	Rat	NOAEL 250 mg/kg/day	2 generation
Ethoxylated C9-11 Alcohols	Dermal	Not classified for male reproduction	Rat	NOAEL 100 mg/kg/day	2 generation

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

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Sodium Xylene Sulfonate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL not available	
Ethoxylated C9-11 Alcohols	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Sodium Xylene Sulfonate	Dermal	liver heart skin endocrine system gastrointestinal tract bone, teeth, nails, and/or hair hematopoietic system immune	Not classified	Rat	NOAEL 500 mg/kg/day	14 weeks

		system nervous system kidney and/or bladder respiratory system				
Sodium Xylene Sulfonate	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 763 mg/kg/day	90 days
Ethoxylated C9-11 Alcohols	Dermal	kidney and/or bladder hematopoietic system	Not classified	Rat	NOAEL 125 mg/kg/day	13 weeks

Aspiration Hazard

For the component/components, either no data are currently available or the data are 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 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:**

GHS Acute 3: Harmful to aquatic life.

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
Sodium Xylene Sulfonate	1300-72-7	Fathead Minnow	Experimental	96 hours	LC50	>400 mg/l
Sodium Xylene Sulfonate	1300-72-7	Green Algae	Experimental	96 hours	EC50	230 mg/l
Sodium Xylene Sulfonate	1300-72-7	Water flea	Experimental	48 hours	EC50	>400 mg/l
Sodium Xylene Sulfonate	1300-72-7	Green Algae	Experimental	96 hours	NOEC	31 mg/l
Ethoxylated C9-11 Alcohols	68439-46-3	Fathead Minnow	Experimental	96 hours	LC50	8.5 mg/l
Ethoxylated C9-11 Alcohols	68439-46-3	Green algae	Experimental	72 hours	EC50	45 mg/l
Ethoxylated C9-11 Alcohols	68439-46-3	Water flea	Experimental	48 hours	EC50	2.686 mg/l
Ethoxylated C9-11 Alcohols	68439-46-3	Fathead Minnow	Experimental	30 days	NOEC	0.73 mg/l
Ethoxylated C9-11 Alcohols	68439-46-3	Green Algae	Experimental	72 hours	NOEC	1.2 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Ammonium Bifluoride	1341-49-7	Data not available - insufficient			N/A	
Sodium Xylene Sulfonate	1300-72-7	Experimental Biodegradation	28 days	Carbon dioxide evolution	84 % weight	OECD 301B - Mod. Sturm or CO2
Ethoxylated C9-11 Alcohols	68439-46-3	Experimental Biodegradation	28 days	Biological Oxygen Demand	88 % weight	OECD 301F - Manometric Respiro

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Ammonium Bifluoride	1341-49-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Sodium Xylene Sulfonate	1300-72-7	Estimated BCF-Carp	42 days	Bioaccumulation Factor	≤2.3	OECD 305E-Bioaccum FI-thru fis
Ethoxylated C9-11 Alcohols	68439-46-3	Estimated Bioconcentration		Bioaccumulation Factor	31	Est: Bioconcentration factor

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other adverse effects

No information available

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: UN2817

Proper Shipping Name: AMMONIUM HYDROGEN DIFLUORIDE, SOLUTION

Technical Name: None assigned.

Hazard Class/Division: 8

Subsidiary Risk: None assigned.

Packing Group: III

Limited Quantity: None assigned.

Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

None assigned.

Air Transport (IATA)

Forbidden: 3M packaging does not meet regulatory agency requirements

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. 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.

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