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 Accessory Products, Air Tool Lubricant

Product Identification Numbers
60-4402-4213-3 60-4402-4214-1

1.2. Recommended use and restrictions on use

Recommended use
Tool Lubricant

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
Chronic Aquatic Toxicity: Category 4.

2.2. Label elements
Signal word
Not applicable

Symbols
Not applicable

Pictograms

Not applicable

Hazard Statements

H413	May cause long lasting harmful effects to aquatic life.

Precautionary statements

General:

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

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 drowsiness or dizziness.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Mineral Oil	64742-58-1	85 - 95
Petroleum Distillates	64742-54-7	50 - 65
Alkanes, C18-28, chloro	85535-86-0	10 - 20
Lubricant	64742-53-6	1 - 10
Sulphide Additive	68425-15-0	0.5 - 5
Petroleum Distillates	64742-65-0	< 1
Additive	68584-23-6	0.1 - 0.5

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:

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
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a carbon dioxide or dry chemical extinguisher 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. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust 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.

6.3. Methods and material for containment and cleaning up
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with 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. 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
For industrial or professional use only. Avoid breathing 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. Contaminated work clothing should not be allowed out of the workplace. 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. 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
OIL MIST, MINERAL	64742-53-6	Malaysia OELs	TWA(as mist)(8 hours):5 mg/m3	
MINERAL OILS, HIGHLY-REFINED OILS	64742-54-7	ACGIH	TWA(inhalable fraction):5 mg/m3	A4: Not class. as human carcin
OIL MIST, MINERAL	64742-54-7	Malaysia OELs	TWA(as mist)(8 hours):5 mg/m3	
MINERAL OILS, HIGHLY-REFINED OILS	64742-58-1	ACGIH	TWA(inhalable fraction):5 mg/m3	A4: Not class. as human carcin
OIL MIST, MINERAL	64742-65-0	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:
Safety Glasses with side shields

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

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 - polymer laminate

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

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/Odor	Mild pretroleum odor, clear light amber liquid
Odor threshold	*No Data Available*
pH	*No Data Available*
Melting point/Freezing point	*Not Applicable*
Boiling point/Initial boiling point/Boiling range	230 ºC
Flash Point	138 ºC [*Test Method:*Pensky-Martens Closed Cup]
Evaporation rate	*No Data Available*
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	*No Data Available*
Flammable Limits(UEL)	*No Data Available*
Vapor Pressure	*No Data Available*
Vapor Density	*No Data Available*
Density	*No Data Available*
Relative Density	0.88 [@ 20 ºC] [*Ref Std:*WATER=1]
Water solubility	Nil
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	35.4 mm2/sec [@ 40 ºC] [*Test Method:*Tested per ASTM protocol] [*Details:*10 wt. D-445]
Viscosity	6.1 mm2/sec [@ 100 ºC] [*Test Method:*Tested per ASTM protocol] [*Details:*10 wt. D-445]
Volatile Organic Compounds	0.18 lb/gal
Percent volatile	2.2 %
VOC Less H2O & Exempt Solvents	21.98 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity
This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Sparks and/or flames

10.5. Incompatible materials
Strong oxidizing agents
Reducing 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:
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

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.

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:
Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

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	Ingestion		No data available; calculated ATE >5,000 mg/kg
Petroleum Distillates	Dermal	Rabbit	LD50 > 5,000 mg/kg
Petroleum Distillates	Ingestion	Rat	LD50 > 5,000 mg/kg
Lubricant	Dermal	Rabbit	LD50 > 2,000 mg/kg
Lubricant	Inhalation-Dust/Mist (4 hours)	Rat	LC50 2.2 mg/l
Lubricant	Ingestion	Rat	LD50 > 5,000 mg/kg
Petroleum Distillates	Dermal	Rabbit	LD50 > 5,000 mg/kg
Petroleum Distillates	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 4 mg/l
Petroleum Distillates	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Petroleum Distillates	Rabbit	Minimal irritation
Lubricant	Rabbit	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
Petroleum Distillates	Rabbit	Mild irritant
Lubricant	Rabbit	Mild irritant

Skin Sensitization

Name	Species	Value
Petroleum Distillates	Guinea pig	Not classified
Lubricant	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
Petroleum Distillates	In Vitro	Some positive data exist, but the data are not sufficient for classification
Lubricant	In Vitro	Some positive data exist, but the data are not sufficient for classification
Lubricant	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Petroleum Distillates	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Lubricant	Dermal	Mouse	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Lubricant	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Lubricant	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Lubricant	Dermal	Not classified for development	Rat	NOAEL 2,000 mg/kg/day	during gestation
Lubricant	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Lubricant	Dermal	Not classified for male reproduction	Rabbit	NOAEL 1,000 mg/kg/day	28 days

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Petroleum Distillates	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Petroleum Distillates	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Petroleum Distillates	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.21 mg/l	28 days

Aspiration Hazard

Name	Value
Lubricant	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:
GHS Chronic 4: May cause long lasting harmful effects to aquatic organisms

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Mineral Oil	64742-58-1		Data not available or insufficient for classification			
Petroleum Distillates	64742-54-7	Water flea	Estimated	48 hours	Effect Level 50%	>100 mg/l
Petroleum Distillates	64742-54-7	Fathead Minnow	Experimental	96 hours	Lethal Level 50%	>100 mg/l
Petroleum Distillates	64742-54-7	Green algae	Estimated	72 hours	Effect Level 50%	>100 mg/l
Petroleum Distillates	64742-54-7	Green algae	Estimated	72 hours	No obs Effect Level	>100 mg/l

Petroleum Distillates	64742-54-7	Water flea	Estimated	21 days	No obs Effect Level	>100 mg/l
Alkanes, C18-28, chloro	85535-86-0	Water flea	Estimated	24 hours	Effect Concentration 50%	102 mg/l
Alkanes, C18-28, chloro	85535-86-0	Rainbow Trout	Estimated	96 hours	Lethal Concentration 50%	>300 mg/l
Lubricant	64742-53-6	Water flea	Experimental	48 hours	Effect Concentration 50%	>100 mg/l
Lubricant	64742-53-6	Green algae	Estimated	96 hours	Effect Concentration 50%	>100 mg/l
Sulphide Additive	68425-15-0	Zebra Fish	Endpoint not reached	96 hours	Lethal Level 50%	>100 mg/l
Sulphide Additive	68425-15-0	Green algae	Experimental	72 hours	Effect Concentration 50%	>100 mg/l
Sulphide Additive	68425-15-0	Water flea	Experimental	48 hours	Effect Concentration 50%	>100 mg/l
Sulphide Additive	68425-15-0	Green algae	Experimental	72 hours	No obs Effect Conc	100 mg/l
Petroleum Distillates	64742-65-0	Rainbow Trout	Experimental	96 hours	Lethal Concentration 50%	>100 mg/l
Petroleum Distillates	64742-65-0	Green algae	Estimated	96 hours	Effect Concentration 50%	>100 mg/l
Petroleum Distillates	64742-65-0	Water flea	Estimated	48 hours	Effect Concentration 50%	>100 mg/l
Petroleum Distillates	64742-65-0	Water flea	Experimental	21 days	No obs Effect Conc	100 mg/l
Additive	68584-23-6	Water flea	Estimated	48 hours	Effect Concentration 50%	>100 mg/l
Additive	68584-23-6	Green algae	Estimated	72 hours	Effect Concentration 50%	>100 mg/l
Additive	68584-23-6	Green algae	Estimated	72 hours	No obs Effect Conc	>100 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Mineral Oil	64742-58-1	Experimental Biodegradation	28 days		9.1 % weight	Other methods
Petroleum Distillates	64742-54-7	Experimental Biodegradation	28 days	Biological Oxygen Demand	31 % weight	OECD 301F - Manometric Respiro
Alkanes, C18-28, chloro	85535-86-0	Data not available or	N/A	N/A	N/A	N/A

		insufficient for classification				
Lubricant	64742-53-6	Experimental Biodegradation	28 days	Biological Oxygen Demand	42 % weight	OECD 301F - Manometric Respiro
Sulphide Additive	68425-15-0	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	>6.2	Other methods
Sulphide Additive	68425-15-0	Experimental Biodegradation	28 days	Biological Oxygen Demand	0 % BOD/ThBOD	OECD 301F - Manometric Respiro
Petroleum Distillates	64742-65-0	Experimental Biodegradation	28 days	Carbon dioxide evolution	23 % weight	Other methods
Additive	68584-23-6	Estimated Biodegradation	28 days	Biological Oxygen Demand	8.0 % BOD/ThBOD	OECD 301D - Closed Bottle Test

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Mineral Oil	64742-58-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Petroleum Distillates	64742-54-7	Estimated Bioconcentration		Bioaccumulation Factor	7.5	Est: Bioconcentration factor
Alkanes, C18-28, chloro	85535-86-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Lubricant	64742-53-6	Estimated Bioconcentration		Log of Octanol/H2O part. coeff	5.07	Other methods
Petroleum Distillates	64742-65-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Additive	68584-23-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 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: None assigned.
Proper Shipping Name: None assigned.
Technical Name: None assigned.
Hazard Class/Division: None assigned.
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:
Not restricted, as per IMDG code 2.10.2.7, marine pollutant exception.

Air Transport (IATA)

UN Number: None assigned.
Proper Shipping Name: None assigned.
Technical Name: None assigned.
Hazard Class/Division: None assigned.
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:
Not restricted, as per Special Provision A197, environmentally hazardous substance exception.

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 product are in compliance with the chemical notification requirements of TSCA.

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