



## Safety Data Sheet

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### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Abrasive Products, Lapping Abrasive

#### Product Identification Numbers

60-0001-1779-0, 60-4401-0937-3, 60-4401-0941-5

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Abrasive Product

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Abrasive Systems Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	1-888-3M HELPS (1-888-364-3577)

#### 1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

### SECTION 2: Hazard identification

#### 2.1. Hazard classification

Acute Toxicity (oral): Category 4.  
Serious Eye Damage/Irritation: Category 2B.  
Skin Corrosion/Irritation: Category 2.  
Specific Target Organ Toxicity (single exposure): Category 1.  
Specific Target Organ Toxicity (central nervous system): Category 3.

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Exclamation mark | Health Hazard |

##### Pictograms



#### **Hazard Statements**

Harmful if swallowed.  
Causes eye irritation.  
Causes skin irritation.  
May cause drowsiness or dizziness.

Causes damage to organs:  
cardiovascular system |  
nervous system |  
kidney/urinary tract |  
respiratory system |

#### **Precautionary Statements**

##### **Prevention:**

Do not breathe dust/fume/gas/mist/vapors/spray.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves.  
Do not eat, drink or smoke when using this product.  
Wash thoroughly after handling.

##### **Response:**

IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.  
IF ON SKIN: Wash with plenty of soap and water.  
If skin irritation occurs: Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.  
IF exposed: Call a POISON CENTER or doctor/physician.  
Rinse mouth.  
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
Specific treatment (see Notes to Physician on this label).

##### **Storage:**

Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.

##### **Disposal:**

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

##### **Notes to Physician:**

This product contains ethylene glycol. Effects of oral ethylene glycol poisoning can be divided into three stages which generally occur over a time-course of hours to days following ingestion: Stage 1 (neurological effects), stage 2 (cardiopulmonary effects) and stage 3 (renal effects). If ethylene glycol poisoning is confirmed, intravenous (IV) administration of ethanol should be considered. Additional pharmacologic and supportive care should be based on the treating physician's judgement.

#### **2.3. Hazards not otherwise classified**

None.

38% of the mixture consists of ingredients of unknown acute oral toxicity.

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Lubricating Oil	9003-13-8	60 - 90
Lubricant	8009-03-8	60 - 90 Trade Secret *
Lubricant	107-21-1	60 - 90 Trade Secret *
Diamond	7782-40-3	5 - 20

\*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

### 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

This product contains ethylene glycol. Effects of oral ethylene glycol poisoning can be divided into three stages which generally occur over a time-course of hours to days following ingestion: Stage 1 (neurological effects), stage 2 (cardiopulmonary effects) and stage 3 (renal effects). If ethylene glycol poisoning is confirmed, intravenous (IV) administration of ethanol should be considered. Additional pharmacologic and supportive care should be based on the treating physician's judgement.

### 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

None inherent in this product.

#### 5.3. Special protective actions for fire-fighters

No unusual fire or explosion hazards 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. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode.

### 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

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.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

For industrial or professional use only. 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.) Combustible dust may form by action of this product on another material (substrate). Dust generated from the substrate during use of this product may be explosive if in sufficient concentration with an ignition source. Dust deposits should not be allowed to accumulate on surfaces because of the potential for secondary explosions.

### 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 strong bases. Store away from oxidizing agents.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Lubricant	107-21-1	Amer Conf of Gov. Indust. Hyg.	CEIL(as aerosol):100 mg/m3	
Lubricant	107-21-1	Chemical Manufacturer Rec Guid	CEIL(as vapor and aerosol):100 mg/m3	

Amer Conf of Gov. Indust. Hyg. : American Conference of Governmental Industrial Hygienists

American Indust. Hygiene Assoc : American Industrial Hygiene Association

Chemical Manufacturer Rec Guid : Chemical Manufacturer's Recommended Guidelines

US Dept of Labor - OSHA : United States Department of Labor - Occupational Safety and Health Administration

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. Provide local exhaust at process emission sources to control exposure near the source and to prevent the escape of dust into the work area. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

**8.2.2. Personal protective equipment (PPE)****Eye/face protection**

To minimize the risk of injury to face and eyes, always wear eye and face protection when working at sanding or grinding operations or when near such operations. 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

**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. Wear appropriate gloves to minimize risk of injury to skin from contact with dust or physical abrasion from grinding or sanding.

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

**Respiratory protection**

Assess exposure concentrations of all materials involved in the work process. Consider material being abraded when determining the appropriate respiratory protection. Select and use appropriate respirators to prevent inhalation overexposure. 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**

<b>General Physical Form:</b>	Liquid
<b>Specific Physical Form:</b>	Paste
<b>Odor, Color, Grade:</b>	Slight sweet odor
<b>Odor threshold</b>	<i>Not Applicable</i>
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>Not Applicable</i>
<b>Boiling Point</b>	200 °C
<b>Flash Point</b>	>=232 °F [Test Method: Closed Cup] [Details: >=]
<b>Evaporation rate</b>	<i>No Data Available</i>
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	Nil
<b>Vapor Density</b>	2.1 [Ref Std: AIR=1]

Specific Gravity	<=3 [Ref Std: WATER=1]
Solubility In Water	Not Applicable
Solubility- non-water	Not Applicable
Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	Not Applicable
Decomposition temperature	Not Applicable
Viscosity	No Data Available

## 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 oxidizing agents

Strong acids

Strong bases

### 10.6. Hazardous decomposition products

#### Substance

None known.

#### Condition

## 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:

Dust from grinding, sanding or machining may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

#### **Skin Contact:**

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

#### **Eye Contact:**

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Dust created by grinding, sanding, or machining may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

#### **Ingestion:**

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

May cause target organ effects after ingestion.

#### **Target Organ Effects:**

##### **Single exposure may cause:**

Cardiac Effects: Signs/symptoms may include irregular heartbeat (arrhythmia), changes in heart rate, damage to heart muscle, heart attack, and may be fatal.

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

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

#### **Additional Information:**

This document covers only the 3M product. For complete assessment, when determining the degree of hazard, the material being abraded must also be considered.

#### **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 300 - 2,000 mg/kg
Lubricant	Dermal		LD50 estimated to be > 5,000 mg/kg
Lubricant	Ingestion	Rat	LD50 > 5,000 mg/kg
Lubricant	Ingestion	Human	LD50 1,600 mg/kg
Lubricant	Inhalation-Dust/Mist (4 hours)	Other	LC50 estimated to be 5 - 12.5 mg/l
Lubricant	Dermal	Rabbit	9,530 mg/kg

ATE = acute toxicity estimate

#### **Skin Corrosion/Irritation**

Name	Species	Value
Lubricant	Rabbit	Minimal irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
Lubricant	Rabbit	Mild irritant

**Skin Sensitization**

Name	Species	Value
Lubricant	Human	Some positive data exist, but the data are not sufficient for classification

**Respiratory Sensitization**

Name	Species	Value

**Germ Cell Mutagenicity**

Name	Route	Value
Lubricant	In Vitro	Not mutagenic
Lubricant	In vivo	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Lubricant	Ingestion	Multiple animal species	Not carcinogenic

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

Name	Route	Value	Species	Test Result	Exposure Duration
Lubricant	Ingestion	Not toxic to female reproduction	Multiple animal species	NOAEL 1,000 mg/kg/day	2 years
Lubricant	Ingestion	Not toxic to male reproduction	Multiple animal species	NOAEL 1,000 mg/kg/day	2 years
Lubricant	Dermal	Some positive developmental data exist, but the data are not sufficient for classification	Mouse	NOAEL 3,549 mg/kg/day	during organogenesis
Lubricant	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Mouse	LOAEL 750 mg/kg/day	during organogenesis
Lubricant	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Mouse	NOAEL 1,000 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
Lubricant	Ingestion	heart   nervous system   kidney and/or bladder   respiratory system	Causes damage to organs	Human	NOAEL Not available	poisoning and/or abuse
Lubricant	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Lubricant	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	poisoning and/or abuse



**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Lubricant	Ingestion	kidney and/or bladder   vascular system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 200 mg/kg/day	2 years
Lubricant	Ingestion	heart   hematopoietic system   liver   immune system   muscles	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,000 mg/kg/day	2 years
Lubricant	Ingestion	respiratory system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 12,000 mg/kg/day	2 years
Lubricant	Ingestion	skin   endocrine system   bone, teeth, nails, and/or hair   nervous system   eyes	All data are negative	Multiple animal species	NOAEL 1,000 mg/kg/day	2 years

**Aspiration Hazard**

Name	Value

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****Ecotoxicological information**

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

**Chemical fate information**

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

**SECTION 13: Disposal considerations****13.1. Disposal methods**

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate 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.

**EPA Hazardous Waste Number (RCRA):** Not regulated

**SECTION 14: Transport Information**

Not regulated per U.S. DOT, IATA or IMO.

*These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M transportation classifications are based on product formulation, packaging, 3M policies and 3M 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 original 3M package is certified for U.S. ground shipment only. If you are shipping by air or ocean, the package may not meet applicable regulatory requirements.*

## SECTION 15: Regulatory information

### 15.1. US Federal Regulations

Contact 3M for more information.

#### 311/312 Hazard Categories:

Fire Hazard - No   Pressure Hazard - No   Reactivity Hazard - No   Immediate Hazard - Yes   Delayed Hazard - No

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
Lubricant	107-21-1	60 - 90

### 15.2. State Regulations

Contact 3M for more information.

### 15.3. Chemical Inventories

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

Contact 3M for more information.

### 15.4. International Regulations

Contact 3M for more information.

**This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.**

## SECTION 16: Other information

### NFPA Hazard Classification

**Health: 2 Flammability: 1 Instability: 0 Special Hazards: None**

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

### HMIS Hazard Classification

**Health: 2 Flammability: 1 Physical Hazard: 0 Personal Protection: X** - See PPE section.

Hazardous Material Identification System (HMIS® III) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® III ratings are to be used with a fully implemented HMIS® III program. HMIS® is a registered mark of the American Coatings Association (ACA).

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