



## Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the 'Regulation of Labelling and Hazard Communication of Dangerous and Harmful Materials' (by the Council of Labor Affairs of the Executive Yuan on October 19th, 2007)

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Abrasive Products, Imperial™ Wetordry™ Paper Sandpaper 401Q, 434Q Sheets, Disc Rolls, PSA

#### Product Identification Numbers

60-0000-6563-5	60-0000-6564-3	60-0000-6565-0	60-0000-6566-8	60-0000-6567-6
60-0000-8471-9	60-0100-1988-7	60-0100-1989-5	60-0600-0419-3	60-0600-0428-4
60-4550-5214-6	60-4550-5612-1	60-4550-5689-9	60-4550-5698-0	60-4550-5714-5
60-4550-5715-2	60-4550-5716-0	60-4550-5745-9	60-4550-5750-9	60-4550-5751-7
60-4550-5752-5	60-4550-5777-2	60-4550-6760-7	60-4550-6761-5	60-4550-6762-3
60-4550-6769-8	60-4550-6770-6	60-4550-6771-4	60-4550-6772-2	60-4550-6782-1
60-4550-6783-9	60-4550-6784-7	60-4550-6785-4	60-4550-6787-0	60-4550-6788-8
60-4550-6789-6	60-4550-6854-8	60-4550-6855-5	60-4550-6856-3	60-4550-6857-1
60-4550-6858-9	60-4550-7020-5	60-4550-7022-1	60-4550-7024-7	60-4550-7026-2
60-4550-7027-0	60-4550-7252-4	60-4550-7261-5	60-9800-2380-2	

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

##### Recommended use

Abrasive Product

#### 1.3. Details of the supplier of the substance or mixture

**ADDRESS:** 6F, No.95, Tun Hwa South Road, Section 2, Taipei 10682, Taiwan, R.O.C.  
**Telephone:** (03) 478-3600  
**E Mail:** schang7@mmm.com  
**Website:** www.3m.com.tw

#### 1.4. Emergency telephone number

**Emergency Telephone:** 886-3-4783600, 8:00AM - 4:30PM

**Fax number:** (03) 475-0924, 475-0904

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

Not classified as hazardous according to Taiwan GHS criteria, CNS15030.

#### 2.2. Label elements

**SIGNAL WORD**

Not applicable.

**Symbols**

Not applicable.

**Pictograms**

Not applicable.

**2.3. Other hazards**

This document is specific to the supplied product. For complete assessment, when determining the degree of hazard, the material being abraded must also be considered.

**SECTION 3: Composition/information on ingredients**

This material is a mixture.

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>% by Wt</b>
Silicon Carbide Mineral	409-21-2	5 - 20
Carbon Black	1333-86-4	0.01 - 0.15
Cured Resin	Mixture	5 - 25
Paper Backing	None	70 - 90
PSA	Mixture	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:**

Wash with soap and water. 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:**

No need for first aid is anticipated.

**4.2. Most important symptoms and effects, both acute and delayed**

See Section 11.1. Information on toxicological effects.

**4.3. Advice to protect the rescuer and special warning to doctors**

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation and personal protective equipment.

**4.4. Indication of any immediate medical attention and special treatment required**

Not applicable

**SECTION 5: Fire-fighting measures**

## 3M™ Abrasive Products, Imperial™ Wetordry™ Paper Sandpaper 401Q, 434Q Sheets, Disc Rolls, PSA

### 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.

### Hazardous Decomposition or By-Products

#### Substance

Carbon monoxide

Carbon dioxide

#### Condition

During Combustion

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

Observe precautions from other sections.

### 6.2. Environmental precautions

Not applicable.

### 6.3. Methods and material for containment and cleaning up

Not applicable.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

For industrial or professional use only. Avoid breathing of dust created by sanding, grinding or machining. 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

No special storage requirements.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Carbon Black	1333-86-4	ACGIH	TWA(inhalable fraction):3 mg/m <sup>3</sup>	
Carbon Black	1333-86-4	CMRG	TWA:0.5 mg/m <sup>3</sup>	
Carbon Black	1333-86-4	Taiwan OELs	TWA(8 hours):3.5 mg/m <sup>3</sup>	
Silicon Carbide Mineral	409-21-2	ACGIH	TWA(as fiber):0.1 fiber/cc;TWA(inhalable fraction):10 mg/m <sup>3</sup> ;TWA(respirable fraction):3 mg/m <sup>3</sup>	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association  
CMRG : Chemical Manufacturer's Recommended Guidelines  
Taiwan OELs : Taiwan. Standards on Workplace Atmosphere of Dangerous and Hazardous Materials  
TWA: Time-Weighted-Average  
STEL: Short Term Exposure Limit  
ppm: parts per million  
mg/m<sup>3</sup>: milligrams per cubic metre  
CEIL: Ceiling

## **8.2. Exposure controls**

### **8.2.1. Engineering controls**

Provide appropriate local exhaust ventilation for sanding, grinding or machining. 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:  
Safety Glasses with side shields

#### **Skin/hand protection**

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

#### **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 particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

## **8.4. Hygiene Measures**

See Section 7.1 Precautions for safe handling

# **SECTION 9: Physical and chemical properties**

## **9.1. Information on basic physical and chemical properties**

<b>Physical state</b>	Solid
<b>Appearance/Odor</b>	Solid Abrasive Product
<b>Odor threshold</b>	<i>Not Applicable</i>
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point/Freezing point</b>	<i>Not Applicable</i>

<b>Boiling point/Initial boiling point/Boiling range</b>	<i>Not Applicable</i>
<b>Flash Point</b>	<i>Not Applicable</i>
<b>Evaporation rate</b>	<i>Not Applicable</i>
<b>Flammability (solid, gas)</b>	Not Classified
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapor Density</b>	<i>Not Applicable</i>
<b>Relative Density</b>	<i>Not Applicable</i>
<b>Water solubility</b>	<i>Not Applicable</i>
<b>Solubility- non-water</b>	<i>Not Applicable</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>Not Applicable</i>
<b>Autoignition temperature</b>	<i>Not Applicable</i>
<b>Decomposition temperature</b>	<i>Not Applicable</i>
<b>Viscosity</b>	<i>Not Applicable</i>

## 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

None known.

### 10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
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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:

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:

Mechanical Skin irritation: Signs/symptoms may include abrasion, redness, pain, and itching.

#### Eye Contact:

Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

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:

No health effects are expected.

#### 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 > 5,000 mg/kg
Silicon Carbide Mineral	Dermal	Rat	LD50 > 2,000 mg/kg
Silicon Carbide Mineral	Ingestion	Rat	LD50 > 2,000 mg/kg
Carbon Black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon Black	Ingestion	Rat	LD50 > 8,000 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
Carbon Black	Rabbit	No significant irritation

#### Serious Eye Damage/Irritation

Name	Species	Value
Carbon Black	Rabbit	No significant irritation

#### Skin Sensitization

Name	Species	Value

#### Respiratory Sensitization

Name	Species	Value

#### Germ Cell Mutagenicity

**3M™ Abrasive Products, Imperial™ Wetordry™ Paper Sandpaper 401Q, 434Q Sheets, Disc Rolls, PSA**

Name	Route	Value
Carbon Black	In Vitro	Not mutagenic
Carbon Black	In vivo	Some positive data exist, but the data are not sufficient for classification

**Carcinogenicity**

Name	Route	Species	Value
Carbon Black	Dermal	Mouse	Not carcinogenic
Carbon Black	Ingestion	Mouse	Not carcinogenic
Carbon Black	Inhalation	Rat	Carcinogenic

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

Name	Route	Value	Species	Test Result	Exposure Duration

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

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Silicon Carbide Mineral	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification		HHA	
Carbon Black	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure

**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**

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.

**3M™ Abrasive Products, Imperial™ Wetordry™ Paper Sandpaper 401Q, 434Q Sheets, Disc Rolls, PSA**

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Silicon Carbide Mineral	409-21-2		Data not available or insufficient for classification			
Carbon Black	1333-86-4		Data not available or insufficient for classification			

**12.2. Persistence and degradability**

No test data available

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Silicon Carbide Mineral	409-21-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Carbon Black	1333-86-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

**12.3. Bioaccumulative potential**

No test data available

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Silicon Carbide Mineral	409-21-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Carbon Black	1333-86-4	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**

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

The substrate that was abraded must be considered as a factor in the disposal method for this product. Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste.

## SECTION 14: Transport Information

### 14.1. International Regulations

Not hazardous for transportation.

## SECTION 15: Regulatory information

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

#### Applicable regulations:

Taiwan. Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste (EPA Order No. 0950098458C, Table 1 Process Hazardous Industrial Waste, December 14, 2006)

Labor Safety and Health Act

### 15.2. Global Inventory Status:

Toxic Substances Control Act: Exempt from Inventory Listing

## SECTION 16: Other information

### 16.1. Literature references

#### Consulter's information

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#### Revision information:

No revision information is available.

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3M Taiwan SDSs are available at [www.3m.com.tw](http://www.3m.com.tw)