SAFETY DATA SHEET

Issuing Date 01-Jan-2014 Revision Date 25-Aug-2018 Revision Number 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name MICRO FINE HONING COMPOUNDS

Other means of identification 515-6271, 12668, 515-6272, 12680 J-140 KX-9713

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Abrasive / Buffing Compound

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier NameFormax Mfg. CorporationSupplier Address168 Wealthy St.S.W.

Grand Rapids

MI 49503 US

Supplier Phone Number Phone:1-616-456-5458

Fax:1-616-456-7507

Contact Phone1-616-456-7507

Supplier Email sales@formaxmfg.com

Emergency telephone number

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) Formax polishing & buffing compounds are formulated with abrasives surrounded in a matrix of grease binders, waxes and or soap / water emulsions. Ingredient ratio proportions can be and are varied to meet individual buffing needs and surface conditioning. Buffing compounds as shipped do not present a hazard.

Buffing operations may cause lint and abrasive residue particulates to be created. Proper ventilation and respirator recommended

POTENTENTIAL HEALTH EFFECTS

Eye: May cause eye irritation Skin: May cause mild skin irritation

Ingestion: Large oral doses may cause irritation

Inhalation: Avoid breathing dust when used in a buffing process

Chronic: None expected

Emergency Overview

Signal word

Warning

Hazard Statements

None

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance Dark green

Physical State Solid

Odor Fatty Odor

Precautionary Statements - Prevention

Obtain special instructions before use

Precautionary Statements - Response

None

Precautionary Statements - Storage

None

Precautionary Statements - Disposal

None

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

None

Other information

May cause slight eye irritation

PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION

Interactions with Other Chemicals

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

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Chemical Name	CAS No	Weight-%	Trade Secret
Aluminum oxide	1344-28-1	30 - 60	*
Chromium (III) oxide	1308-38-9	15 - 40	*
Stearic acid	57-11-4	5 - 10	*

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

Eye Contact Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist,

call a physician.

Skin Contact Wash skin with soap and water. In the case of skin irritation or allergic reactions

see a physician.

Inhalation Remove to fresh air. If symptoms persist, call a physician.

Ingestion Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a

physician.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and No information available.

Effects

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

No information available.

Hazardous Combustion Products

Carbon oxides.

Explosion Data

Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge No.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with eyes.

Environmental Precautions

Environmental Precautions Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with

eyes.

Conditions for safe storage, including any incompatibilities

Storage Keep container tightly closed.

Incompatible Products None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Aluminum oxide	TWA: 1 mg/m ³ respirable	TWA: 15 mg/m ³ total dust	
1344-28-1	fraction	TWA: 5 mg/m ³ respirable	
		fraction	
		(vacated) TWA: 10 mg/m ³ total	
		dust	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction	
Chromium (III) oxide	TWA: 0.5 mg/m ³ Cr	TWA: 0.5 mg/m ³ Cr	IDLH: 25 mg/m ³ Cr(III)
1308-38-9		(vacated) TWA: 0.5 mg/m ³ Cr	TWA: 0.5 mg/m ³ Cr

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d

962 (11th Cir., 1992) See section 15 for national exposure control parameters

Appropriate engineering controls

Engineering Measures Showers

Eyewash stations Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection For buffing machines wear safety glasses and/or face shield helmets. See OSH 29 CFR

1910.122 (Safety Glasses).

Skin and Body Protection Protective work clothing, heavy duty gloves, body apron or belly pads, safety shoes as

needed.

Respiratory Protection Respiratory protection (specify type): OSHA 24 CFR/134 NIOSH/MSHA Approved

respirators for particulates from buffing debris. If exposure limits are exceeded or irritation is

experienced, ventilation and evacuation may be required.

Hearing Protection Avoid prolonged excessive noise levels created by buffing and polishing operations.

See: OSHA 29 CFR 1910.215 (Hearing Protection)

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State Solid

 Appearance
 Premolded Cake Form
 Odor
 Fatty Odor

Color Dark Green **Odor Threshold** No information available

None known

<u>Property</u> <u>Values</u> <u>Remarks/ Method</u>

None known рΗ No data available 131F Melting / freezing point None known Boiling point / boiling range No data available None known Flash Point No data available None known **Evaporation Rate** NiL None known Flammability (solid, gas) No data available None known

Flammability Limit in Air
Upper flammability limit
No data available

Lower flammability limit
Vapor pressure
Vapor density
No data available

Water Solubility
Solubility in other solvents
Partition coefficient: n-octanol/water No data available
Autoignition temperature
Decomposition temperature
No data available
Kinematic viscosity
No data available
Dynamic viscosity
No data available
No data available
No data available

Dynamic viscosityNo data availableExplosive propertiesNo data availableOxidizing PropertiesNo data available

Other Information

Softening PointNo data availableVOC Content (%)No data availableParticle SizeNo data available

Particle Size Distribution

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10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Using under conditions of insufficient dust collecting systems or ventilation.

Incompatible materials

Strong Oxidizers or Reducing Agents.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information Product does not present an acute toxicity hazard based on known or supplied information.

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Inhalation Specific test data for the substance or mixture is not available.

Eye Contact Specific test data for the substance or mixture is not available.

Skin Contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Aluminum oxide	> 5000 mg/kg (Rat)	=	-
1344-28-1			

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Chromium (III) oxide		Group 3		
1308-38-9				

IARC (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive Toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposureNo information available.

Chronic Toxicity No known effect based on information supplied. Carcinogenic potential is unknown.

Target Organ Effects Eyes. Respiratory system. Skin. Lungs.

Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

Not applicable

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Persistence and Degradability

No information available.

Bioaccumulation

No information available

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40)

CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local

regulations for additional requirements.

Contaminated Packaging Dispose of contents/containers in accordance with local regulations.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Chromium (III) oxide			D007	
1308-38-9				

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
Chromium (III) oxide	Toxic
1308-38-9	Corrosive
	Ignitable

14. TRANSPORT INFORMATION

DOT NOT REGULATED

Proper Shipping Name NMFC-48580 Scouring Compound (Cake, Paste or Liquid form N.O.I.)

Hazard Class N/A

TDG Not regulated

MEX Not regulated

ICAO Not regulated

IATA Not regulated

Proper Shipping Name NON REGULATED

Hazard Class N/A

IMDG/IMO Not regulated

Hazard Class N/A

RID Not regulated

ADR Not regulated

ADN Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies

DSL All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Aluminum oxide - 1344-28-1	1344-28-1	30 - 60	1.0
Chromium (III) oxide - 1308-38-9	1308-38-9	15 - 40	0.1

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Chromium (III) oxide		X		
1308-38-9				

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65



MARNING: "This product can expose you to Titanium Dioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Aluminum oxide	Χ	X	Χ	Χ	
1344-28-1					
Chromium (III) oxide	X	X	Χ	X	Χ
1308-38-9					
Supplier Trade Secret			Х		

International Regulations

Mexico

National occupational exposure limits

Component	Carcinogen Status	Exposure Limits
Aluminum oxide		Mexico: TWA= 10 mg/m ³
1344-28-1 (30 - 60)		_
Chromium (III) oxide		Mexico: TWA 0.5 mg/m ³
1308-38-9 (15 - 40)		_

Mexico - Occupational Exposure Limits - Carcinogens

Canada

WHMIS Hazard Class

Non-controlled

16. OTHER INFORMATION

NFPA Health Hazards 1 Flammability 0 Instability 0 Physical and

Chemical Hazards - HMIS Health Hazards 1 Flammability 0 Physical Hazard 0 Personal Protection

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Revision Date Revision Note

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Precautions to be taken in handling and storing: Handle with adequate ventilation for nuisance dust when using. See OSHA 29 CFR 1910.24 (Ventilation) and 29 CFR 1910.1000 (Air Contaminants). Other precautions: Keep liquids from freezing. Store away from excessive heat. The information and recommendations set forth herein are taken from sources believed to be accurate as of the date hereof; however, Formax Mfg. makes no warranty with respect to the accuracy of the information or the suitability of the recommendation, and assumes no liability to any user thereof.

End of Safety Data Sheet