

**Material Safety Data Sheet**      **ALUMINUM OXIDE**  
**RUBBER BONDED ABRASIVE DISCS**

This Material Safety Data Sheet for Aluminum Oxide Rubber Bonded Abrasive Discs & Wheels covers all of the items listed below:

1. Red Flash Discs and Wheels
2. Dura-Thin
3. High Speed Discs
4. Cutoff Wheels: 1 ½ .025, 1 ½ .040, 1 ¼ .062
5. Mizzy Red Heatless Wheels
6. Mizzy White Heatless Wheels
7. Roughing Discs

See attached sheets for ingredients that are contained in the above products.

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**Grinding Wheel:**

A wheel in which abrasive particles are embedded into, and held together by, a matrix or bond.

**Purposes:**

Remove material (Mounted Stone, Mizzy Heatless Wheel)  
Cut material (Cutoff Wheels, Red Flash Discs and Ultra-Thin)  
Finish (polish)

**Bond Types:**

Vitrified      Inorganic Bonds  
Oxichloride

Resin          Organic Bonds  
Rubber

**Rubber Grades:**

Soft Rubber: Pliable, i.e. Rubber Wheels, Kegold Wheels, Clasp Polishers

Hard Rubber: Cutoff Wheels, Separating Discs, Veri-Thin, Ultra-Thin, Dura-Thin, Ultra-Flex, Red Flash, R.F. Finishing Wheels

**Abrasive Types:**

Aluminum Oxide:      (red, brown, white) Primarily used on metallics  
Silicon Carbide:      (black, green) Primarily used on non-metallics

**Contamination:**

Silicon carbide abrasive is non-contaminating – cannot cause bubbles. The danger of contamination today is practically negligible since firing is done in a vacuum.

**Abrasive Grit Size:**

Medium – 90 to 150  
Fine – 180 to 240  
X Fine – 280 – 320

**Operating Speeds:**

Wheels are rated in Surface Feet Per Minute (SFM) which is converted to Revolutions Per Minute (RPM).

Rating factors are:      Diameter  
                                    Bond Type  
                                    Overhang (mounted & unmounted points)

All Keystone items 1 ½" diameter and less are rated at 30,000 RPM. Rubber points are rated at 30,000 RPM with a ½" overhang or less.

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## ALUMINUM OXIDE RUBBER BONDED ABRASIVE DISCS

### Section 1 – Identification of the Substance/Preparation and of the Company/Undertaking

**Product Name:** ALUMINUM OXIDE RUBBER BONDED  
ABRASIVE DISCS & WHEELS

MSDS Initial Approval Date:	July 2002
MSDS Prepared by:	S.Rohmer/RMP

**Chemical Name:**

**Family:** Abrasive Products inc: Red Flash Discs & Wheels, Dura-Thin, High Speed Discs, Cutoff Wheels, Knife Edge Wheels, Mizzy Red & White Heatless Wheels

**Product Use:**

**Product #:** -- Various

**Manufacturer:** Keystone Industries  
616 Hollywood Av  
Cherry Hill, NJ 08002  
**Emergency Phone Numbers:** (800) 535 - 5053  
**Information Contacts:** ( 856 ) 663 - 4700

### Section 2 - Composition/Information on Ingredients

Chemical Identity	CAS Numbers	EINECS#	INCI Name	Exposure	Limits	Carcinogen	%
				OSHA TWA/STEL	ACGIH TWA/STEL		
Aluminum Oxide	1344-28-1			15 mg/m <sup>3</sup>	10 mg.m <sup>3</sup>	N/A	<80%
Iron Oxide	1309-37-1			15 mg/m <sup>3</sup>	10 mg.m <sup>3</sup>	N/A	<10%
Titanium Oxide	13463-67-7			15 mg/m <sup>3</sup>	10 mg.m <sup>3</sup>	N/A	<10%
Acrylonitrile	107-13-1			> 1 ppm		N/A	<.0001%
Butadiene	106-99-0			> 0.02 ppm		N/A	<.0001%
Cashew, nutshell liquid, polymer with formaldehyde and phenol	67700-42-9					N/A	<1%

**Hazard Symbols: Risk Phrases: Safety Phrases**

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

This information is based on findings from related or similar materials.

- This product, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

#### Potential Health Effects, Signs and Symptoms of Exposure:

Primary Route of Entry	Eyes, inhalation
Eye	Dust may irritate eyes.
Skin	Some may experience skin irritation from dust.
Ingestion	No known adverse effects but, ingestion not recommended.
Inhalation	Acute: Coughing, shortness of breath. Chronic: May affect breathing capacity.
Other	Grinding may create elevated sound levels which may affect hearing.
Sub-Chronic Effects	

NOTE: Refer to Section 11, Toxicological Information for Details

### Section 4 - First Aid Measures

First Aid for Eye	Wash with large amounts of water. Obtain first aid and medical assistance if needed.
First Aid for Skin	Wash affected areas with soap and water.
First Aid for Inhalation	Remove person to fresh air. Apply artificial respiration as needed. Obtain medical assistance.
First Aid for Ingestion	Obtain medical assistance.

### Section 5 - Fire Fighting Measures

Flash Point (°F/°C)	Flammable Limit (vol%)	Auto-ignition Temperature (vol%)
N/A	LEL: N/A	N/A

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UEL: N/A

**Method:**

Extinguishing Media: Use water  
 Fire Fighting Instructions: None  
 Unusual Hazards: No applicable information found

### Section 6 - Accidental Release Measures

Spill or Release Procedures Normal clean-up procedures

### Section 7 - Handling and Storage

Handling Normal use – handle with adequate ventilation  
 Storage Normal dry storage  
 Explosion Hazard

### Section 8 - Exposure Controls / Personal Protective Equipment

Engineering Controls

**Personal Protective Equipment**

General Local exhaust and ventilation recommended.  
 Eye/ Face Protection Recommended. See OSHA 29 CFR 1910.133 – Face and Eye Protection  
 Skin Protection Protective gloves as desired by user.  
 Respiratory Protection As needed. For approved dust respirators, see OSHA 29 CFR 1910.134 – Respiratory Protection.  
 Other Protective Clothing or Equipment As needed, hearing protection. See OSHA 29 CFR 1910.215 – Hearing Protection.

### Section 9 - Physical and Chemical Properties

Appearance	Odor & Odor Threshold	pH	Specific Gravity (H <sub>2</sub> O = 1)	Viscosity	% Volatile
Solid, coated abrasive product	May produce odor in use.	N/A	2 - 4		No applicable information found

Boiling Point/ Freezing Point	Decomposition Temperature	Octanol/Water Partitioning Coefficient Log Po/w	Vapor Pressure (mm Hg):	Vapor Density (AIR = 1)	Evaporation Rate (Butyl Acetate = 1)	Ignition	Solubility In Water
No applicable information found			No applicable information found	No applicable information found			Slight

Flash Point (°F/°C)	Flammable Limit (vol%)	Auto-ignition Temperature (vol%)
N/A	LEL – N/A UEL – N/A	N/A

### Section 10 - Stability and Reactivity

<p><b>Stability:</b> Stable</p> <p><b>Hazardous Decomposition Products:</b> Dust is generated in use. In most cases, the material removed from the work piece will be significantly greater than the grinding wheel components.</p> <p><b>Conditions to Avoid:</b> No applicable information found</p>	<p><b>Incompatibility (Materials to Avoid):</b> No applicable information found</p> <p><b>Hazardous Polymerization:</b> Will not occur</p>
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### Section 11 - Toxicological Information

Acute Oral Toxicity	Acute Dermal Toxicity	Acute Inhalation Toxicity	Irritation - skin	Irritation - Eye

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<b>Sensitization</b>	<b>Mutagenicity</b>	<b>Sub-chronic Toxicity</b>
No toxicological information determined.		

RTECS#:

**Section 12 - Ecological Information**

**Ecotoxicological Information**

<b>Acute Toxicity To Fish</b>	<b>Acute Toxicity to Invertebrates</b>	<b>Acute Toxicity to Algae</b>	<b>Bioconcentration</b>	<b>Toxicity to Sewage Bacteria</b>
No ecotoxicological information determined.				

**Chemical Fate Information**

<b>Biodegradability</b>	
<b>Chemical Oxygen Demand</b>	
No chemical fate information determined	

**Environmental Fate Information**

**Section 13 - Disposal Considerations**

Standard landfill methods consistent with applicable Local, State and Federal laws.

**Section 14 - Transport Information**

Proper Shipping Name:	Not regulated
Identification Number:	
Marine Pollutant:	
Special Provisions:	
Emergency Response Guidebook (ERG) #:	

**Section 15 - Regulatory Information**

**US Federal Regulations**

Clean Air Act: HAP/ODS	
Clean Water Act:	
FDA: Food Packaging Status	
Occupational Safety and Health Act	
RCRA	•
SARA Title III: Section 302 (TPQ)	
SARA Title III: Section 302 (RQ)	
SARA Title III: Section 311-312:	Fire hazard – no Pressure hazard – no Reactivity hazard – no Immediate hazard - yes Delayed hazard – no
SARA Title III: Section 313:	None
TSCA Section 8(b): Inventory:	
TSCA Significant New Use Rule:	

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**State Regulations**

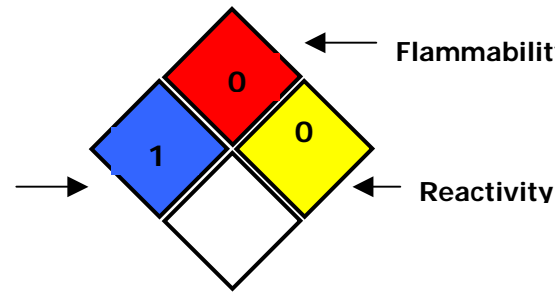
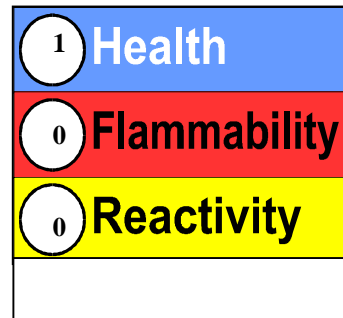
CA Right-to-Know Law: California No Significant Risk Rule:	
MA Right-to-Know Law:	
NJ Right-to-Know Law:	
PA Right-to-Know Law:	
FL Right-to-Know Law:	
MN Right-to-Know Law:	

**International Regulations**

CDSL: Canadian Inventory (On Canadian Transitional List)	
EINECS: European Inventory:	<ul style="list-style-type: none"> <li>• HAZARD SYMBOLS:.</li> <li>• RISK PHRASES</li> <li>• SAFETY PHRASES:</li> </ul>

**Section 16 - Other Information**

**Hazard Rating System (Pictograms)**

<p><b>NFPA:</b></p>  <p>Health →      ← Flammability</p> <p>                                 ← Reactivity</p>	<p><b>HMIS:</b></p>  <p>1 Health</p> <p>0 Flammability</p> <p>0 Reactivity</p>
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~Verified on 2012-11 by Henry Schein to be the most current version of the MSDS. To be verified again on 2015-11. ~