

SAFETY DATA SHEET

According to GHS – GLOBAL HARMONISED SYSTEM
Reg. EC 1907/2006 and to Reg. EU 453/2010

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION	
Product name	Empire Abrasives - SURFACE CONDITIONING MATERIALS
Use of the product	Abrasive material for mechanical industry
Company name:	Empire Abrasives, Inc
Address:	1251 Humbracht Circle Unit C Bartlett IL 60103
Telephone number:	630-372-8032
Fax number:	630-372-8076
E-mail	
Emergency phone number:	502-552-5226

2 HAZARDS IDENTIFICATION	
Classification	The product is classified not hazardous according to Reg. EC 1272/2008
Hazards to human	No relevant hazards to human
Hazards to the environment	No relevant hazards to the environment
Physical or chemical hazards	No relevant physical or chemical hazards

3 COMPOSITION / INFORMATION ON INGREDIENTS

Material is composed of abrasive powders supported on a structure of plastic or cotton or polyester tissue binded by a polymeric binder

Abrasive material

Matrix	Substance	Hazard symbol	Hazard classification	RTECS	CAS N.	EC N.	% by weight*
Abrasive powders	Corundum* (Al ₂ O ₃)	---	---	BD1200000	1344-28-1	215-691-6	100
		TSCA 8(b) inventory		Listed			
	Silicon carbide (SiC)	---	---	VW0450000	409-21-2	206-991-8	
		TSCA 8(b) inventory		Listed			

*: Corundum is a natural form of aluminium oxide; it contains small impurities of iron, magnesium and silica

**: any differences on abrasive powder composition (% by weight) does not modify hazard classification of material according to reference Regulation

Structural support

Matrix	Structural component	Risk symbol	Classification
Support	Plastic tissue	---	---
	Cotton/polyester tissue	---	---
Binder	Inert polymeric binder film	---	---






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4 FIRST AID MEASURES	
Preamble	Following statements must be taken as base-rules concerning abrasive materials and has to be completed according to safety data sheets of processed materials and process cooling liquid used
General informations	In case of eyes and skin contact, give priority to eyes first aid measures
Eye contact	Rinse opened eye for several minutes under running water and seek immediate medical advice, showing this MSDS
Skin contact	Remove contaminated clothes. Immediately wash with water and soap and rinse thoroughly.
Inhalation	Supply fresh air; consult doctor in case of complaints
Swallowing	No negative effects in case of swallowing. Drink water and seek immediate medical advice, showing this MSDS
5 FIRE FIGHTING MEASURES	
Suitable extinguishing agents	CO ₂ , extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam
Protective equipment	Ordinary protective equipment in case of fire-fighting
Specific risks	None
6 ACCIDENTAL RELEASE MEASURES	
Person-related safety precautions	Not applicable to the article
Measures for environmental protection	
Measures for cleaning/collecting	
7 HANDLING AND STORAGE	
Handling	Avoid direct contact using recommended handling safety equipment (see § 8). According to normal use conditions, product does not contain volatile components
Storage	Keep in cool, dry, ventilated storage in closed original containers. Do not drinking or eating near the storage place
8 EXPOSURE CONTROLS / PERSONAL PROTECTION	
Risk scenario	Any risk concerning the use in mechanical industry Experimental toxicological data are not available concerning specific exposure scenarios. Hazard classification of this product was done according to Reg. 1272/2008/EC and other available informations
Information about design of technical facilities	Ensure good ventilation/exhaustion at the workplace. Safety washing water must be available for skin and eyes

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Exposure limit values	OSHA 2014 TWA [mg/m ³]		ACGIH 2014 TWA [mg/m ³]		
	Substance	Total	Respirable fraction	Inhalable fraction	Respirable fraction
	<i>Silicon carbide</i>	15	5	10	3
	<i>Corundum [Al₂O₃]</i>	15	5	---	---
	<i>Particles not otherwise classified</i>	10 mg/m ³ inhalable fraction (TWA 8 h, ACGIH 2014) 3 mg/m ³ respirable fraction (TWA 8 h, ACGIH 2014)			
Respiratory protection	In case of brief exposure use respiratory filter device 				
Eyes protection	Safety goggles or face shield 				
Hands protection	Protective gloves for chemical products, according to standard EN374; materials for long contact time 				
Skin protection	Use protective clothes and protective shoes  				
Other informations	Abrasive materials used are inert and cannot cause risks when correctly stored and managed. During use on machineries, they request safety precautions for workers. The most part of powder particles comes from the processed material and eventually from the cooling liquid. Consequently attention and safety precautionary measures on vapours and dusts environmental removing must be applied. Follow the local Safety Management standards and instructions				

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Solid abrasive material
Odour	Odourless
PH	n.a.
Charge	n.a.
Boiling point	n.a.
Melting point	n.a.
Flash point	n.a.
Vapour pressure	n.a.
Water solubility at 20°C	Not soluble
Volatile organic chemicals (VOC)	No volatile chemicals (VOC) are present at detectable level
Partition coefficient n-octanol/water	n.a.

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10 STABILITY AND REACTIVITY	
Stability	Stable in normal handling and storage conditions
Conditions/materials to avoid	Keep away from strong oxidizers and electrostatic charges
Dangerous decomposition products	After overheating and drying, thermal decomposition at $T > 250^{\circ}\text{C}$ can produce dangerous vapours as carbon dioxide, carbon oxide and nitrogen oxides

11 TOXICOLOGICAL INFORMATIONS	
Material is inert on structural matrix. Data are referring to used abrasive components	
Carcinogenic effects	n.a.
Mutagenic effects	n.a.
Acute toxicity	Al ₂ O ₃ (Corundum): > 5000 mg/Kg - DL50, oral rat (IUCRID Data Sheet, European Chemical Bureau) SiC (Silicon Carbide): no available data
Chronic toxicity	n.a.
Skin	Mechanical irritating effects
Inhalation	Irritating (superior respiratory system). Powders produced during use can cause respiratory irritating effects
Eyes	Mechanical irritating effects: symptoms can be irritating, reddening, damages of corneal surface, tearing. Powders produced during use can cause eyes irritating effects
Other negative effects	Other risks can be caused depending on the abrasion process material used

12 ECOLOGICAL INFORMATIONS	
Ecological toxicity	Al ₂ O ₃ (Corundum): > 100 mg/l – 96 h, salmo trutta (long time acute toxicity) > 100 mg/l – 48 h, daphnia magna (long time acute toxicity) SiC (Silicon carbide): not available data
Mobility	n.a.
Biopersistency	n.a.
Biodegradability	n.a.
Potential of bioaccumulation	n.a.

13 DISPOSAL CONSIDERATIONS	
Disposal recommendation	Recovery if possible. Waste and uncleaned packages must be disposed of in accordance with state and local environmental regulations.

14 TRANSPORT INFORMATION	
Transport classification and regulation	ONU number: n.a. ADR/RID: not regulated (road and railway) ICAO/IATA: not regulated (air transport) IMDG/IMO: nor regulated (maritime transport)

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15 REGULATORY INFORMATION		
GHS Hazard labeling symbols		None
UE Hazard labeling symbols		None
U.S.A. OSHA labeling symbols		None
CANADA WHIMIS labeling symbols		None
GHS hazard statements		None
UE hazard statements		None
U.S.A OSHA hazard statements		None
CANADA WHIMIS hazard statements		None
Precautionary statements (Dir. EC 67/548)	S 22	Do not breathe dust
	S 39	Wear eye/face protection
Precautionary statements (Reg. EC 1272/2008)	P 260	Do not breathe dust
	P 280	Wear protective gloves/eye/face protection
Other regulation references	<p>All ingredients of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act Chemical Substance Inventory (see section 3)</p> <p>Reg. EC 1272/2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives EC 67/548 and EC 1999/45, and amending Reg. EC 1907/2006 (Reach)</p> <p>Product does not contains detectable amounts of:</p> <ul style="list-style-type: none"> substances classified carcinogenic cat. 1 or cat. 2 substances included in the ECHA Candidate list of SVHC substances included in the Reach annex 14 (authorization) <p>No restriction are applicable according to UE Reach Regulation (Annex 17 and following amendments)</p>	
16 OTHER INFORMATIONS		
GHS Hazard statements (full text) (§ 3)	None	
Further informations and references	<p>Informations are updated to:</p> <ul style="list-style-type: none"> GHS "Globally Harmonized System of Classification and Labelling of Chemicals, United Nations, 1st Revised Edition 2005" ANSI Z400.1/Z129.1-2010 Hazard Evaluation and Safety Data Sheet and Precautionary Labeling Preparation Hazard Communication Standard 29 CFR 1910.1200 Reg. EC 1272/2008 and following amendments NIOSH: Registry of toxic effects of chemical substances ACGIH: American Conference of Governmental Industrial Hygienists, 2014 <p>When applicable, according to Reg. 1907/2006/EC - chapter II, all substances used in this preparation where registered</p> <p>Product is according to Reg. 1907/2006/EC – title II requirements (registration of substances)</p> <p>Dir. EC 42/2006 (machineries directive): not applicable.</p> <p>Dir. EC 65/2011 (Rohs 2): not applicable</p>	

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ABBREVIATIONS AND ACRONYMS

LD50	Average letal dose
TLV - TWA	Threshold Limit Value - Time Weighted Average
STEL	Short Term Exposure Limit
OES	Occupational Exposure Standard
REACH	Registration, Evaluation, Autorisation of Chemicals
ECHA	European Chemical Agency
RTECS	Registry of Toxic Effects of Chemical Substances (U.S.A.)
OSHA	Occupational Safety and Health Administration
NIOSH	National Institute for Occupational Safety and Health
ACGIH	American Conference of Governmental Industrial Hygienists
TSCA	Toxic Substances Control Act
WHMIS	Workplace Hazardous Materials Information System (Canada)
OSHA	Occupational Safety and Health Administration
n.a.	Not applicable/Not available

DISCLAIMER

THIS PREPARATION MUST BE USED ONLY IN THE PROPER WAY FOR PROPER USE.

THE INFORMATIONS CONTAINED IN THIS MSDS, AS OF THE ISSUE DATA, IS BELIEVED TO BE TRUE AND CORRECT. HOWEVER, THE ACCURACY OR COMPLETENESS OF THIS INFORMATION AND ANY RECOMMENDATIONS OR SUGGESTIONS ARE MADE WITHOUT WARRANTY OR GUARANTEE. SINCE THE CONDITIONS OF USE ARE BEYOND THE CONTROL OF OUR COMPANY, IT IS THE RESPONSABILITY OF THE USER TO DETERMINE THE CONDITIONS OF SAFE USE OF THIS PRODUCT