HARBOR FREIGHT TOOLS

SAFETY DATA SHEET

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SDS Revision: 1.1 Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision Date: 7/25/2015 1. PRODUCT & COMPANY IDENTIFICATION 1.1 Product Name: 7 IN 24 GRIT METAL GRINDING WHEEL 5 PC 1.2 Chemical Name: Aluminum Oxide 1.3 Synonyms P/N 90336 1.4 Trade Names: Warrior 1.5 Product Uses & Restrictions: Abrasive Wheel 1.6 Distributor's Name: Harbor Freight Tools USA, Inc. Distributor's Address: 1.7 26541 Agoura Road, Calabasas, CA 91302 USA Emergency Phone: CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300 (CCN 676687) 1.8 19 Business Phone / Fax: +1 (805) 388-1000 2. HAZARDS IDENTIFICATION Hazard Identification: This product is classified as a HAZARDOUS SUBSTANCE, but not as DANGEROUS GOODS 2.1 according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia). WARNING! MAY CAUSE AN ALLERGIC SKIN REACTION. MAY BE HARMFUL IF INHALED. Classification: Skin Sens. 1B; Acute Tox. Inh. 5 Hazard Statements (H): H317 - May cause an allergic skin reaction. H333 - May be harmful if inhaled. Precautionary Statements (P): P261 – Avoid breathing dust. P304 + P312 – IF INHALED: Call a POISON CENTER/doctor if you feel unwell. P280 - Wear protective gloves/eye protection/face protection. P302+P352 - IF ON SKIN - Wash with soap and water. P333+P313 - If skin irritation occurs: Get medical advice/attention. P501 - Dispose of contents/container to a licensed treatment, storage or disposal facility (TSDF) 3. COMPOSITION & INGREDIENT INFORMATION EXPOSURE LIMITS IN AIR (mg/m³) ACGIH NOHSC OSHA ppm ppm ppm ES ES-ES-STEL CHEMICAL NAME(S) CAS No. RTECS No. EINECS No. % TLV STEI TWA STEL PEAK PEL IDLH OTHER 1344-28-1 BD1200000 215-691-6 60-100 (10) NA NF NF NF (10) NA NA ALUMINUM OXIDE Skin Sens. 1B; Acute Tox. Inh. 5; H317, H333 10-30 NA NA NF NF NF NA NA NA 9003-35-4 NA 500-005-2 PHENOLIC RESIN 1010-41-4 EW4150000 NA NA NF NF NF NA NA 231-900-3 1-5 NA CALCIUM SULFATE DIHYDRATE 4. FIRST AID MEASURES Ingestion unlikely; however, if ingested, do not induce vomiting. Contact the nearest Poison Control Center 4.1 First Aid: Ingestion: or local emergency number. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed. If product gets in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes lifting Eyes: upper and lower lids, occasionally. Wash thoroughly with soap and water. In case of contact, immediately flush skin with plenty of water for at <u>Skin</u>: least 15 minutes. Inhalation: Remove victim to fresh air at once. If breathing is difficult, administer oxygen. If breathing stops give artificial respiration. Keep person warm, quiet and get medical attention. Effects of Exposure: 4.2 If product is swallowed, may cause gastrointestinal disturbance. Ingestion: Exposure to dust may cause eye irritation. Symptoms of overexposure may include redness, itching, Eyes: irritation and watering. Skin: May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals. Coughing, wheezing, shortness of breath, impaired pulmonary function. Irritation or soreness in throat, Inhalation: nose and respiratory tract.

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HFT-90336 Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1.1 SDS Revision Date: 7/25/2015 4. FIRST AID MEASURES – cont'd 43 Symptoms of Overexposure: If product is swallowed, may cause gastrointestinal disturbance. Ingestion: Exposure to dust may cause eye irritation. Symptoms of overexposure may include redness, itching, Eyes: irritation and watering. May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in Skin: some sensitive individuals. Inhalation: Coughing, wheezing, shortness of breath, impaired pulmonary function. Irritation or soreness in throat, nose and respiratory tract. 4.4 Acute Health Effects Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of dust can cause coughing, wheezing, shortness of breath, impaired pulmonary function. Irritation or soreness in throat, nose and respiratory tract. 4.5 Chronic Health Effects: Possible allergic dermatitis in some sensitive individuals. 4.6 Target Organs: Eyes, Skin, Lungs, Respiratory System 4.7 Medical Conditions Pre-existing dermatitis, other skin conditions. HEALTH 1 Aggravated by Exposure: FLAMMABILITY 0 0 PHYSICAL HAZARDS **PROTECTIVE EQUIPMENT** В EYES SKIN 5. FIREFIGHTING MEASURES 5.1 Fire & Explosion Hazards: This material can burn but will not readily ignite. However, if involved in a fire, this product may decompose at high temperatures to form toxic gases (e.g., CO, CO₂, Hydrocarbons). Burning or thermal decomposition can produce the following combustion or decomposition products: Phenol, Formaldehyde, Carbon Monoxide and/or carbon dioxide. Carbon Monoxide is highly toxic if inhaled Carbon dioxide in sufficient concentration can act as an asphyxiant. 5.2 Extinguishing Methods: CO₂, Dry Chemical, Foam Use water spray to cool containers. 53 Firefighting Procedures: Keep containers cool until well after the fire is out. Fight fires as for surrounding materials. As in any fire, wear MSHA/NIOSH approved self-contained breathing apparatus (pressure-demand) and full protective gear. Keep containers cool until well after the fire is out. Use water spray to cool fireexposed surfaces and to protect personnel. Fight fire upwind. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. 6. ACCIDENTAL RELEASE MEASURES Before cleaning any spill individuals involved in cleanup must wear appropriate Personal Protective Equipment. Plastic 6.1 Spills or rubber gloves, respirator, eye protection and apron may be required for clean-up of large spills. No special precautions are required for intact packaging containing this product. If product is crushed, use respiratory protection equipment. Do not use compressed air to clean up any residue. Use a wet method or vacuums equipped with High Efficiency Particulate (HEPA) filters to clean up any residues from this product. Waste must be placed in dust tight containers or sealed plastic bags for disposal. Label properly. Keep spills and cleaning runoffs out of drains, municipal sewers and open bodies of water. 7. HANDLING & STORAGE INFORMATION 7.1 Work & Hygiene Practices: Do not eat, drink or smoke when handling this product. Wash unintentional residues with soap and warm water. 7.2 Storage & Handling Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans) away from heat and direct sunlight. Avoid temperatures above 120 °F. Keep away from incompatible substances. 7.3 Special Precautions: Clean all dusts and particulates promptly as they present a slip and fall hazard. 8. EXPOSURE CONTROLS & PERSONAL PROTECTION Exposure Limits: ACGIH NOHSC OSHA OTHER 8.1 $ppm (ma/m^3)$ STE TLV STEL ES-TWA ES-STEL ES-PEAK PEL IDLH CHEMICAL NAME(S) ALUMINIUM OXIDE (10) NF NF (10) NA NF NA NA 8.2 Ventilation & Engineering General mechanical (e.g., fans) or natural ventilation is sufficient when this product is in use. Use local or general Controls exhaust ventilation to effectively remove and prevent buildup of dusts generated from the use of this product. Ensure appropriate decontamination equipment is available (e.g., sink, safety shower, eye-wash station). 8.3 Respiratory Protection: In instances where dusts are generated when using this product, and respiratory protection is needed, use only protection authorized by 29 CFR §1910.134, applicable U.S. State regulations, or the Canadian CAS Standard Z94.4-93 and applicable standards of Canadian Provinces, EC member States, or Australia.

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		8. EXPOSURE CONTROLS & PERSONAL PROTECTION	
3.4	Eye Protection:	Avoid eye contact. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).	0
8.5	Hand Protection:	Heavy-duty work gloves recommended under normal conditions of use to avoid abrasions and reduce risk of exposure to hands. If necessary, refer to U.S. OSHA 29 CFR §1910.138, the appropriate standards of Canada, or the EU member states.	
8.6	Body Protection:	No apron required under normal circumstances; however, it is recommended. Upon completion of work activities using this product), wash any exposed areas thoroughly with soap and water. If necessary, refer to appropriate standards of Canada, the EU member states, or U.S. OSHA.	

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Dark brown to black solid article
9.2	Odor:	Odorless
9.3	Odor Threshold:	NA
9.4	pH:	NA
9.5	Melting Point/Freezing Point:	2100 °C (3812 °F) – Alumina
9.6	Initial Boiling Point/Boiling Range:	NA
9.7	Flashpoint:	ΝΑ
9.8	Upper/Lower Flammability Limits:	NA
9.9	Vapor Pressure:	NA
9.10	Vapor Density:	ΝΑ
9.11	Relative Density:	2.0
9.12	Solubility:	Insoluble
9.13	Partition Coefficient (log Pow):	NA
9.14	Autoignition Temperature:	NA
9.15	Decomposition Temperature:	NA
9.16	Viscosity:	NA
9.17	Other Information:	NA

10. STABILITY & REACTIVITY

10.1	Stability:	Stable under normal conditions.
10.2	Hazardous Decomposition Products:	Oxides of carbon (CO, CO ₂), metal oxides, particulates.
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid:	Open flames, high heat, incompatible substances and direct sunlight.
10.5	Incompatible Substances:	Avoid extreme heat and ignition sources. Store away from oxidizers, strong acids and alkalis.

11. TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Inhalation:	YES	Absorption:	YES	Ingestion:	YES			
11.2	Toxicity Data:	This product has NOT I available for some of th					entific literature, is			
11.3	Acute Toxicity:	See Section 4.4	e Section 4.4							
11.4	Chronic Toxicity:	See Section 4.5	See Section 4.5							
11.5	Suspected Carcinogen:	NA	A							
11.6	11.6 Reproductive Toxicity: This product is not reported to produce reproductive toxicity in humans.									
	Mutagenicity:	This product is not reported to produce mutagenic effects in humans.								
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.								
	Teratogenicity:	This product is not reported to cause teratogenic effects in humans.								
	Reproductive Toxicity:	This product is not reported to cause reproductive effects in humans.								
11.7	Irritancy of Product:	The product can cause	allergic skin reactio	ns (e.g., rashes, welts	, dermatitis) upon	prolonged or repeate	ed exposure.			
11.8	Biological Exposure Indices:	NE	-							
11.9	Physician Recommendations:	Treat symptomatically.								

HARBOR FREIGHT TOOLS Guality Tools at Ridicclously Low Prices

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Prepa	ared to OSHA, ACC, ANSI, N	OHSC, WHMIS, 2001/58 & 1272/2008/EC Standards	SDS Revision: 1.1	SDS Revision Date	: 7/25/2015
		12. ECOLOGICAL INF	ORMATION		
12.1	Environmental Stability:	There are no specific data available for this product.			
12.2	Effects on Plants & Animals:	There are no specific data available for this product.			
12.3	Effects on Aquatic Life:	There are no specific data available for this product.			
		13. DISPOSAL CONSI	DERATIONS		
13.1	Waste Disposal:	Dispose of in accordance with federal, state, provincia	al and local regulations.		
13.2	Special Considerations:	NA			
		14. TRANSPORTATION I	NFORMATION		
		nber, proper shipping name, hazard class & division, p e required by 49 CFR, IATA/ICAO, IMDG and the CTD(ch mode of transpor	tation. Additional
14.1	49 CFR (GND):	NOT REGULATED			
14.2	IATA (AIR):	NOT REGULATED			
14.3	IMDG (OCN):	NOT REGULATED			
14.4	TDGR (Canadian GND):	NOT REGULATED			
14.5	ADR/RID (EU):	NOT REGULATED			
14.6	SCT (MEXICO):	NOT REGULATED			
14.7	ADGR (AUS):	NOT REGULATED			
	•				
		15. REGULATORY INF	ORMATION		
15.1	SARA Reporting Requirements:	This product contains <u>Aluminum Oxide</u> , a substance s	subject to SARA Title III, Section	on 313 reporting req	uirements.
15.2	SARA Threshold Planning Quantity:	There are no specific Threshold Planning Quantities f	or the components of this prod	luct.	
15.3	TSCA Inventory Status:	The components of this product are listed on the TSC	A Inventory or are otherwise e	xempt.	
15.4	CERCLA Reportable Quantity (RQ):	NA			
15.5	Other Federal Requirements:	None of the ingredients are listed as Hazardous A Pollutants under the Clean Water Act (CWA). None Water Act (CWA). This product does not contain any	of the ingredients are listed a	s Priority Pollutants	
15.6	Other Canadian Regulations:	This product has been classified according to the ha all of the information required by the CPR. The DSL/NDSL. None of the components of this product a WHMIS D2B (Other Toxic Effects).	zard criteria of the CPR and th components of this product a	ne SDS contains are listed on the	Ţ
15.7	State Regulatory Information:	Alumina (Aluminum Oxide) is found on the following Minnesota Hazardous Substances List (MN), New Exposures List (WA). No other ingredients in this product, present in a con- criteria lists: California Proposition 65 (CA65), Dela List (FL), Massachusetts Hazardous Substances List Substances List (MN), New Jersey Right-to-Know List Right-to-Know List (PA), Washington Permissible Exp NOTE: This product contains a substance(s) known	v Jersey Right-to-Know List centration of 1.0% or greater, a ware Air Quality Management (MA), Michigan Critical Substa st (NJ), New York Hazardous bosures List (WA), Wisconsin H	(NJ), and Washin are listed on any of t t List (DE), Florida ances List (MI), Minr Substances List (N dazardous Substanc	egton Permissible the following state Toxic Substances hesota Hazardous IY), Pennsylvania tes List (WI).
15.8	Other Requirements:	reproductive harm. The primary components of this product are listed in A Harmful (Xn). <u>Risk Phrases</u> (R): 20-38 – Harmful if in 23-24-62 - Keep away from children. Do not breath do not induce vomiting: seek medical advice immed possible.	haled. Irritating to skin. <u>Safety</u> e dust. Avoid contact with ski	<u>y Phrases</u> (S): 2- n. If swallowed,	×

HARBOR FREIGHT TOOLS Quality Tools at Ridiculously Low Prices

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Prepa	ared to OSHA, ACC, ANS	SI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards	SDS Revision: 1.1	SDS Revision Date: 7/25/2015			
	-	16. OTHER INFO					
16.1 Other Information: WARNING! MAY CAUSE AN ALLERGIC SKIN REACTION. MAY BE HARMFUL IF INHALED. Avoid breathing du IF INHALED: Call a POISON CENTER/doctor if you feel unwell. Wear protective gloves/eye protection/face protectio IF ON SKIN – Wash with soap and water. If skin irritation occurs: Get medical advice/attention. KEEP OUT OF REAC OF CHILDREN. NOTE: This product contains a substance(s) known to the State of California to cause cancer, birth defects, or oth reproductive harm.							
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.					
16.3							
16.4	Prepared for:	Harbor Freight Tools USA, Inc. 26541 Agoura Road Calabasas, CA 91302 USA Tel: +1 (805) 388-1000 http://www.harborfreight.com	HARBOR FREIGHT Quality Tools at Ridiculously Low				
16.5	Prepared by:	ShipMate, Inc. P.O. Box 787 Sisters, Oregon 97759-0787 USA Tel: +1 (310) 370-3600 Fax: +1 (310) 370-5700 http://www.shipmate.com					

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REACTIVITY

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards

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FLAMMABILITY

DEFINITION OF TERMS

HAZARD RATINGS:

3

0 Minimal Hazard 1 Slight Hazard

2 Moderate Hazard

Severe Hazard

A large number of abbreviations and acronyms appear on a SDS. Some of these that are commonly used include the following:

GENERAL INFORMATION:

Г CAS No. Chemical Abstract Service Number

EXPOSURE LIMITS IN AIR:						
ACGIH American Conference on Governmental Industrial Hygienists C Ceiling Limit						
						ES Exposure Standard (Australia)
IDLH	Immediately Dangerous to Life and Health					
OSHA	U.S. Occupational Safety and Health Administration					
PEL	Permissible Exposure Limit					
STEL	Short-Term Exposure Limit					
TLV	Threshold Limit Value					
TWA	Time Weighted Average					
FIRST AID M	FIRST AID MEASURES:					

CPR Cardiopulmonary resuscitation - method in which a person whose heart has stopped receives manual chest compressions and breathing to circulate blood and provide oxygen to the body.

HMIS	HMIS-III HEALTH, FLAMMABILITY & REACTIVITY RATINGS:							
0	Minimal Hazard		HEALTH					
1	Slight Hazard		FLAMMABILITY					
2	Moderate Hazard		PHYSICAL HAZARDS					
3	Severe Hazard		PERSONAL PROTECTION					
4	Extreme Hazard							

PERSONAL PROTECTION RATINGS:

Α					(3		E		8	
в					I	+		E		四	
С	0		T.			I		F		8	
D	B		T.			J		E		Î	
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F			THE REAL		2	K	Consult special I				r SOPs fe s.
Sa	fety Glasses Splash Goggles			Face Shield & Protective Eyewea			Gloves				
	Boots		Synthet	ic Apron	Protective Clo & Full Su			ing	Du	Ist Res	pirator
			8	3	(m)				Î		
Full I	Full Face Respirator Dust & Vapor Half- Mask Respirator						Full Face Airline Hood/Ma Respirator or SCBA				
отн	ER STAN	DARD	ABBRE	VIATIONS	6:						
ML Maximum Limit											
mg/m3 milligrams per cubic meter											
	NA		/ailable								
	ND		etermined								
	NE		stablished								
L	NF	Not Fo									

NE Not Established					
NF	Not Found				
NR	No Results				
ppm	parts per million				
SCBA	Self-Contained Breathing Apparatus				
NATIONAL FI	RE PROTECTION ASSOCIATION: NFPA				
FLAMMABILI	TY LIMITS IN AIR:				
Autoignition Temperature	Minimum temperature required to initiate combustion in air with no other source of ignition				
LEL	Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source				

Upper Explosive Limit - highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source

UEL

	3 Severe F	lazard									
	4 Extreme	Hazard									
ACI	D Acidic						/				
ALI	Alkaline				\wedge						
COF	R Corrosiv	е			/ <u> </u>	₩ /					
-	Use No			HE	EALTH						
						V SP	ECIAL				
0						PR	ECAUTIONS				
TREFOI											
TOXICOL	OGICAL II	NFORMAT	ION:								
	LD	50 Lethal I s	Lethal Dose (solids & liquids) which kills 50% of the exposed animals s								
	LC	50 Lethal of	concentration	(gases) whi	ch kills 50% d	of the expose	d animal				
	рр	m Concer	ntration expre	essed in parts	of material p	er million pa	rts				
	TC	D _{Io} Lowest	dose to caus	se a symptom	n						
	TCL	o Lowest	concentratio	n to cause a	symptom						
TD _{Io} ,	LD _{lo} , & LD _o			centration) to		l or toxic effe	cts				
	Co, LC ₁₀ , & L(, .							
,	IAR			/ for Researc	h on Cancer						
-	NT				in on Gancer						
			al Toxicology	-							
	RTEC	S Registr	y of I oxic Eff	ects of Chem	nical Substan	ces					
	BC	F Biocond	centration Fa	ctor							
	TL	-m Median	threshold lin	nit							
log K	Kow or log K	oc Coeffici	ent of Oil/Wa	ater Distributi	on						
REGULA	TORY INFO	ORMATIO	N:								
WHMI	-			Matorial Infor	mation Sveta	m					
			orkplace Hazardous Material Information System								
DO.			ment of Transportation								
т		rt Canada									
EP/	A U.S. Env	rironmental F	nmental Protection Agency								
DS	L Canadia	n Domestic S	omestic Substance List								
NOHS	C National	Occupationa	al Health and	Safety Com	mission (Aus	tralia)					
NDS			stic Substan	Ŧ	,	,					
PS			bstances List								
TSC			e Control Act								
EL			nion (European Union Directive 67/548/EEC) hrdungsklassen (German Water Hazard Class)								
WGI	Wasserg	jefährdungsk	dassen (Gerr	nan Water H	azard Class)						
HMIS-I	II National	Paint & Coa	int & Coatings Association Hazardous Materials Identification System								
WORKPL	ACE HAZ	ARDOUS N	IATERIAL	S IDENTIF	ICATION (WHMIS) SY	/STEM:				
\bigcirc	۲	٨		1	۲		Ŕ				
Class A	Class B	Class C	Class D1	Class D2	Class D3	Class E	Class F				
Compressed	Flammable	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive				
EC (67/54	8/EEC) IN	FORMATIC	ON:	1	I						
		Ž	¥	8	.	×	×				
С	E	F	N	0	т	Xi	Xn				
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful				
CLP/GHS	(1272/200	8/EC) PIC	TOGRAMS	i:							

			\diamondsuit			\diamond		×
GHS01	GHS02	GHS03	GHS04	GHS05	GHS06	GHS07	GHS08	GHS09
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment