HARBOR FREIGHT TOOLS

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SAFETY DATA SHEET

Page 1 of 6 HFT-68137

OTHER

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1.1 SDS Revision Date: 7/25/2015 1. PRODUCT & COMPANY IDENTIFICATION Product Name: 4-1/2 IN 30 GRIT DEPRESSED CENTER METAL CUTOFF WHEEL Chemical Name: Aluminum Oxide Synonyms P/N 68137 Trade Names: Warrior Product Uses & Restrictions: Abrasive Wheel Distributor's Name: Harbor Freight Tools USA, Inc. Distributor's Address: 26541 Agoura Road, Calabasas, CA 91302 USA Emergency Phone: CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300 (CCN 676687) 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 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 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 First Aid: Ingestion unlikely; however, if ingested, do not induce vomiting. Contact the nearest Poison Control Center 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: 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.

HARBOR FREIGHT TOOLS

SAFETY DATA SHEET

Page 2 of 6 **HFT-6813**

Qualit	y Tools at Aldiculously Low Prices	JAFLI					ļ	HFT-68137	
Prepa	ared to OSHA, ACC, ANSI, N	NOHSC, WHMIS, 2001/58 & 1272/2008/E	C Standards		SDS Revision	n: 1.1 S	DS Revision Dat	e: 7/25/2015	
		4. FIRST A	ID MEAS	SURES	 – cont'd 				
4.3	Symptoms of Overexposure:	Ingestion: If product is swallow		-					
		Eyes: Exposure to dust r		e irritation.	Symptoms	of overexposu	re may includ	e redness, itching,	
		Skin: May be irritating to	0	duct can c	ause allergic :	skin reactions	(e.g., rashes,)	velts, dermatitis) in	
		some sensitive indiv			adoo anorgio		(0.9., 100100, 1		
		Inhalation: Coughing, wheezin nose and respirator	0.	of breath, ir	mpaired pulm	onary function	Irritation or	soreness in throat,	
4.4	Acute Health Effects:	Non-irritating when used as direct concentrations of dust can cause soreness in throat, nose and resp	e coughing, wh						
4.5	Chronic Health Effects:	Non-irritating when used as direct	ted. Possible a	allergic derr	matitis in som	e sensitive indi	viduals.		
4.6	Target Organs:	Eyes, Skin, Lungs, Respiratory Sy							
4.7	Medical Conditions Aggravated by Exposure:	Pre-existing dermatitis, other skin	conditions.			HEALTH		1	
						FLAMMABI		0	
						PHYSICAL I	HAZARDS	0	
						PROTECTIV	/E EQUIPME	NT B	
						EYES S	SKIN		
		5 FIRFI	FIGHTING	MEAS					
5.1	Fire & Explosion Hazards:	This material can burn but will n				l in a fire this	product may		
		decompose at high temperatures thermal decomposition can produ Formaldehyde, Carbon Monoxide Carbon dioxide in sufficient conce	s to form toxic uce the followi and/or carbon	gases (e.g ing combus dioxide. Ca	g., CO, CO _{2,} stion or decor arbon Monoxi	Hydrocarbons) mposition prod	. Burning or lucts: Phenol,		
5.2	Extinguishing Methods:	CO ₂ , Dry Chemical, Foam. Use w							
5.3	Firefighting Procedures:	Keep containers cool until well after				ounding materia	als. As in any		
		exposed surfaces and to protect dilution from entering sewers, dra must use full bunker gear include	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 fire-exposed 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.						
						-0			
		6. ACCIDEN							
6.1									
		7. HANDLING	& STOR	GE IN	FORMAT	ION			
7.1	Work & Hygiene Practices:	Do not eat, drink or smoke when h					h soap and wa	ırm water.	
7.2	Storage & Handling:	Use and store in a cool, dry, we							
		sunlight. Avoid temperatures abor	ve 120 °F. Kee	ep away fro	om incompatib	le substances.			
7.3	Special Precautions:	Clean all dusts and particulates pr	omptly as they	/ present a	slip and fall ha	azard.			
		8. EXPOSURE CONT	ROLS&	PERSO		OTECTIO	N		
8.1	Exposure Limits:		ACGIH		NOHSC		OSHA	OTHER	
	ppm (mg/m ³)	ΓΓ					STE		
		CHEMICAL NAME(S) ALUMINIUM OXIDE	TLV STEL (10) NA	ES-TWA NF	ES-STEL ES	-PEAK PEL NF (10)	L IDLH NA NA		
8.2	Ventilation & Engineering Controls:	General mechanical (e.g., fans) exhaust ventilation to effectively r appropriate decontamination equi	or natural ven remove and pr	tilation is s revent build	sufficient whe dup of dusts g	n this product generated from	is in use. Us the use of thi		
8.3	Respiratory Protection:	In instances where dusts are g needed, use only protection author the Canadian CAS Standard Z94. States, or Australia.	enerated wher orized by 29 C	n using th FR §1910.	is product, a 134, applicab	nd respiratory le U.S. State r	protection is egulations, or		

HARBOR FREIGHT TOOLS

SAFETY DATA SHEET

Page 3 of 6 HFT-68137

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

SDS Revision: 1.1

SDS Revision Date: 7/25/2015

		8. EXPOSURE CONTROLS & PERSONAL PROTECTION	
8.4	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).	8
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:	ΝΑ
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):	ΝΑ
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 b available for some of the					entific literature, is				
11.3	Acute Toxicity:	See Section 4.4									
11.4	Chronic Toxicity:	See Section 4.5									
11.5	Suspected Carcinogen:	NA									
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 repo	rted to cause repro	ductive effects in hum	ans.						
11.7	Irritancy of Product:	The product can cause	allergic skin reactio	ns (e.g., rashes, welts	s, dermatitis) upon	prolonged or repeate	d exposure.				
11.8	Biological Exposure Indices:	NE									
11.9	Physician Recommendations:	Treat symptomatically.									

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SAFETY DATA SHEET

Page 4 of 6 **HFT-68137**

Prepa	red to OSHA, ACC, ANSI, NO	OHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1.1 SDS Revision Date: 7/25/2015	5											
		12. ECOLOGICAL INFORMATION												
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 CONSIDERATIONS												
13.1	Waste Disposal:	Dispose of in accordance with federal, state, provincial and local regulations.												
13.2	Special Considerations:	NA												
		14. TRANSPORTATION INFORMATION												
		nber, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation. Ac e required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.	dditional											
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 INFORMATION												
15.1	SARA Reporting Requirements:	This product contains Aluminum Oxide, a substance subject to SARA Title III, Section 313 reporting requirements	3.											
15.2	SARA Threshold Planning Quantity:	There are no specific Threshold Planning Quantities for the components of this product.												
15.3	TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory or are otherwise exempt.												
15.4	CERCLA Reportable Quantity (RQ):	NA												
15.5	Other Federal Requirements:	None of the ingredients are listed as Hazardous Air Pollutants (HAPs). None of the ingredients are listed a Pollutants under the Clean Water Act (CWA). None of the ingredients are listed as Priority Pollutants under the Water Act (CWA). This product does not contain any Class 1 or Class 2 ozone depletors.												
15.6	Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substances List. WHMIS D2B (Other Toxic Effects).												
15.7	State Regulatory Information:	Alumina (Aluminum Oxide) is found on the following state criteria list: Massachusetts Hazardous Substances L Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), and Washington Per Exposures List (WA). No other ingredients in this product, present in a concentration of 1.0% or greater, are listed on any of the followin criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Sub List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Ha Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Penn Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (W NOTE: This product contains a substance(s) known to the State of California to cause cancer, birth defects, reproductive harm.	missible ing state ostances izardous isylvania VI).											
15.8	Other Requirements:	The primary components of this product are listed in Annex I of EU Directive 67/548/EEC: Harmful (Xn). <u>Risk Phrases</u> (R): 20-38 – Harmful if inhaled. Irritating to skin. <u>Safety Phrases</u> (S): 2- 23-24-62 - Keep away from children. Do not breathe dust. Avoid contact with skin. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label where possible.												

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SAFETY DATA SHEET

Page 5 of 6 **HFT-68137**

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	RMATION					
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 protection 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	Disclaimer:	This Safety Data Sheet is offered pursuant to OS government regulations must be reviewed for app Tools USA, Inc.'s knowledge, the information of accuracy, suitability or completeness is not guara provided. The information contained herein relat other materials, all component properties must b consult the latest edition.	blicability to this product. To the ontained herein is reliable and nteed and no warranties of any es only to the specific product(e best of ShipMate's & Harbor Freigh d accurate as of this date; however type, either expressed or implied, are s). If this product(s) is combined with				
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						

SAFETY DATA SHEET

Page 6 of 6 HFT-68137

REACTIVITY

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

SDS Revision: 1.1

SDS Revision Date: 7/25/2015

FLAMMABILITY

DEFINITION OF TERMS

HAZARD RATINGS:

0 Minimal Hazard1 Slight Hazard

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

GENERAL INFORMATION:

CAS No. Chemical Abstract Service Number

EXPOSURE	EXPOSURE LIMITS IN AIR:							
ACGIH	American Conference on Governmental Industrial Hygienists							
С	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:							

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	ĺ	HEALTH								
1	Slight Hazard	ĺ	FLAMMABILITY								
2	Moderate Hazard	ĺ	PHYSICAL HAZARDS								
3	Severe Hazard	ĺ	PERSONAL PROTECTION								
4	Extreme Hazard										

PERSONAL PROTECTION RATINGS:

ppm parts per million

FLAMMABILITY LIMITS IN AIR:

Autoignition Temperature

> LEL UEL

SCBA Self-Contained Breathing Apparatus
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

source of ignition

Α						G				2	
В						Н					8
С	0		E T			I		(I)		2	
D	(Fr		E.			J	0	(I)			8
Е	0					κ	3	(I)			
F			E-F			Х	Consult special I				
Sa	fety Glasse	es	s Splash Goggles		F		e Shield &		G	love	s
	Boots		Syntheti	Synthetic Apron			tive Cloth	ing	Dust F	Resp	irator
			8	3					Ŵ		
	Face Respir	rator	Mask Re	•	2.		ull Face spirator		Airline or	Hood SCB	
	ML			ATIONS							
<u> </u>	mg/m3		ams per cu	ubic meter							
	NA	Not Av									
	ND		etermined								
	NE	Not Es	tablished								
	NF	Not Fo	ound								
	NR	No Re	sults								

Minimum temperature required to initiate combustion in air with no other

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

2	Moderate I						ACTIVITY			
	woderate	Hazard								
	Severe Ha									
4	Extreme H	azard				2	<u>></u>			
ACD	Acidic				X		/			
ALK	Alkaline									
COR				н		T /				
₩	Use No Wa	ater				VK SP	ECIAL			
OX	Oxidizer						ECAUTIONS			
TREFOIL	Radioactiv	e								
TOXICOLO	GICAL INF	ORMAT	ION:							
	LD ₅₀	Lethal E s	Dose (solids	& liquids) wh	ich kills 50%	of the expos	sed animals			
	LC ₅₀	Lethal c	concentration	(gases) which	ch kills 50% o	of the expose	ed animal			
	ppm	Concen	tration expre	ssed in parts	of material p	er million pa	rts			
	TD _{lo}	Lowest	dose to caus	e a symptom	ı					
	TCLo	Lowest	concentratio	n to cause a	symptom					
TD _{io} , LI	D _{Io} , & LD _o or			centration) to		l or toxic effe	ects			
	LC _{Io} , & LC _o									
	IARC	Internat	ional Agency	for Researc	h on Cancer					
	NTP	Nationa	I Toxicology	Program						
	RTECS	Registry	of Toxic Eff	ects of Cherr	nical Substan	ces				
	BCF	Bioconc	centration Fa	ctor						
	TLm	Median	threshold lim	nit						
log K _{ov}	w or log Koc	Coefficie	ent of Oil/Wa	ter Distributio	on					
REGULATO		RMATION	N:							
WHMIS				Aaterial Infor	mation Syste	m				
DOT		-	ransportation							
тс	Transport									
EPA			Protection Ag	encv						
DSL			Substance Lis	-						
NOHSC				Safety Com	mission (Aug	tralia)				
NDSL			stic Substan		1100001 (7405					
PSL			ostances List							
TSCA		-	Control Act							
EU				Directive 67	(548/EEC)					
WGK			•	nan Water H	,					
HMIS-III	-					Identification	n Svetom			
WORKPLA			-	tion Hazardo						
\bigcirc	۲	٨	٩	1			R			
Class A	Class B	Class C	Class D1	Class D2	Class D3	Class E	Class F			
Compressed F	lammable	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive			
EC (67/548/	EEC) INFO	ORMATIC	ON:							
		1×	*	8	&	×	×			
С	E	F	N	0	т	Xi	Xn			
1	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful			
Corrosive			1		1		I			

	$\langle \! \! \circ \! \! \rangle$		\diamondsuit			\diamond		
GHS01	GHS02	GHS03	GHS04	GHS05	GHS06	GHS07	GHS08	GHS09
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment