HARBOR FREIGHT TOOLS

SAFETY DATA SHEET

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

SDS Revision: 1.0

SDS Revision Date: 5/13/2015



HARBOR FREIGHT TOOLS

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Page 2 of 6 SAFETY DATA SHEET HFT-96188 Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1.0 SDS Revision Date: 5/13/2015 4. FIRST AID MEASURES Acute Health Effects: Moderate irritation to eyes and skin near affected areas. Chronic Health Effects Contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Target Organs: Eyes, Skin, Respiratory System, Central Nervous System (CNS). Medical Conditions HEALTH Pre-existing dermatitis, other skin conditions, and disorders of the 1 Aggravated by Exposure: target organs (eyes, skin, and respiratory system). FLAMMABILITY 1 PHYSICAL HAZARDS 0 **PROTECTIVE EQUIPMENT** Х EYES SKIN LUNGS 5. FIREFIGHTING MEASURES Fire & Explosion Hazards This material can burn but will not readily ignite. This material will release vapors when heated above the flash point temperature that can ignite when exposed to a source of ignition. In enclosed spaces, heated vapor can ignite with explosive force. Mists or sprays may burn at temperatures below the flash point. Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and trace oxides of sulfur, phosphorus, zinc and nitrogen. Also, depending upon the conditions of use, low concentrations of hydrogen sulfide can be released. Extinguishing Methods Dry chemical, foam, carbon dioxide, and water fog. Firefighting Procedures: Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personal. Avoid spraying water directly into storage containers because of danger of boil over. 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 Spills: Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment. For small spills (e.g., < 1 gallon (3.8 L)) wear appropriate personal protective equipment (e.g., goggles, gloves). Maximize ventilation (open doors and windows) and secure all sources of ignition. Remove spilled material with absorbent material and place into appropriate closed container(s) for disposal. Dispose of properly in accordance with local, state and federal regulations. Wash all affected areas and outside of container with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse. For large spills (e.g., ≥ 1 gallon (3.8 L)), deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g., sand or earth). Use ONLY non-sparking tools for recovery and cleanup. Transfer liquid to containers for recovery or disposal and solid diking material to separate containers for proper disposal. Remove contaminated clothing promptly and wash affected skin areas with soap and water. Keep spills and cleaning runoffs out of drains, municipal sewers and open bodies of water. 7. HANDLING & STORAGE INFORMATION Work & Hygiene Practices: Use normal hygiene practices. Avoid breathing vapors. Avoid direct skin contact. Wash hands thoroughly after using this product and before eating, drinking, or smoking. Storage & Handling: Use and store in a cool, dry, well-ventilated area. Keep away from excessive heat, open flames, sparks, and other possible sources of ignition. Do not store in unmarked containers or storage devices. Recommended maximum shelf life: 36 months. Special Precautions: Empty containers may contain product residue. Do not pressurize, cut, heat or weld empty containers. Do not reuse empty containers without commercial cleaning or reconditioning.

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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1.0 SDS Revision Date: 5/13/2015 8. EXPOSURE CONTROLS & PERSONAL PROTECTION Exposure Limits: ACGIH NOHSC 8.1 OSHA OTHER ppm (mg/m³) CHEMICAL NAME(S) TLV STEL ES-TWA ES-STEL ES-PEAK PEL STEL IDLH OIL MIST PARAFFIN OILS (5) (10) NF NF (5) (10) 2500 (5) 2,6-DI-TERT-BUTYL-P-CRESOL NA NA NF 10 NF NA NA NA 8.2 Ventilation & Engineering The use of mechanical dilution ventilation is recommended to maintain airborne concentrations below the recommended Controls: occupational exposure limits, whenever this material is used in a confined space, is heated above normal temperatures (up to 38 °C) or is agitated. 8.3 Respiratory Protection: Vaporization or misting is not expected at ambient temperatures. Therefore, the need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSHapproved organic vapor respirator equipped with a dust/mist pre-filter should be used. Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134). Eye Protection: Wear protective eyewear (e.g., safety glasses with side-shield) at all times when handling this 8.4 product. Always use protective eyewear when cleaning spills or leaks. Wear goggles and/or face shield if splashing or spraying is anticipated. Contact lenses pose a special hazard; soft lenses may absorb and concentrate irritants. Have suitable eve wash water available. Use equipment for eve protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU) 85 Hand Protection Use gloves constructed of chemical-resistant materials such as neoprene or heavy nitrile rubber if frequent or prolonged contact is expected. If necessary, refer to U.S. OSHA 29 CFR §1910.138, the appropriate standards of Canada, or the EU member states. Avoid prolonged and/or repeated skin contact. Use clean and impervious protective clothing (e.g., 8.6 Body Protection: neoprene or Tyvek®) if splashing or spraying conditions are present. Protective clothing should 6d include long-sleeves, apron, boots and additional facial protection. If necessary, refer to appropriate standards of Canada, the EU member states, or U.S. OSHA. 9. PHYSICAL & CHEMICAL PROPERTIES 9.1 Appearance: Transparent rose-colored liquid 9.2 Odor: Mild petroleum odor 9.3 Odor Threshold: NA pH: 9.4 NA Melting Point/Freezing Point: 9.5 -41.0 °C (-41.8) °F Initial Boiling Point/Boiling 9.6 NA Range: 97 Flashpoint: 176 °C (348.8 °F) 9.8 Upper/Lower Flammability NA Limits: 99 Vapor Pressure: NA 9 10 Vapor Density: NA $0.8345 \,\mathrm{a/cm^{3}}$ 9.11 Relative Density: 9.12 Solubility: Insoluble 9.13 Partition Coefficient (log Pow): NA 9.14 Autoignition Temperature 206 °C (402.8 °F) 9.15 Decomposition Temperature: NA 9.16 Viscosity 13.83 mPa 9.17 Other Information: NA 10. STABILITY & REACTIVITY 10.1 Stability: Stable at normal temperatures. 10.2 Hazardous Decomposition Fumes, smoke, carbon monoxide, silicon oxides. Products: Hazardous Polymerization: 10.3 Will not occur. 10.4 Conditions to Avoid: Open flames, sparks, high heat, and close proximity to incompatible substances Incompatible Substances: 10.5 Strong oxidizing agents

HARBOR FREIGHT TOOLS Quality Tools at Ridiculously Low Prices

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Absorption: YES

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Ingestion: YES Toxicology data, found in scientific literature

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11.2	Toxicity Data:	This product has NOT been tested on animals to obtain toxicology data. Toxicology data, found in scientific liter available for some of the components of the product and is presented below: Based on animal testing from similar materials & products, the acute toxicity of this product is expected to be:	
11.3	Acute Toxicity:	<u>Oil</u> – LD ₅₀ (oral, rat) > 5,000 mg/kg. <u>2,6-Di-tert-Butyl-p-Cresol</u> - LD ₅₀ (oral, mouse) > 850 mg/kg Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in a Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above ap workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current wo exposure levels produced no significant toxicological effects.	oplicable In acute
11.4	Chronic Toxicity:	NA	
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 produce teratogenic effects in humans.	
	Reproductive Toxicity:	This product is not reported to produce reproductive effects in humans.	
11.7	Irritancy of Product:	See section 4.3	
11.8	Biological Exposure Indices:	NE	
11.9	Physician Recommendations:	Treat symptomatically.	
	-		
		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	
10.2			
		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.	ditional
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	
	/ B B (((B B))	NOTINEOULATED	
		15. REGULATORY INFORMATION	
15.1	SARA Reporting Requirements:	This product does not contain any substances subject to SARA Title III, section 313 reporting requirements.	
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)	

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		15. REGULATORY INFO	RMATION – cont'd
15.7	State Regulatory Information:	Hazardous Substances List (MN) and Washington No other ingredients in this product, present in a criteria lists: California Proposition 65 (CA65), I List (FL), Massachusetts Hazardous Substances Substances List (MN), New Jersey Right-to-Kno	ria lists: Massachusetts Hazardous Substances List (MA), Minnesota n Permissible Exposures List (WA). concentration of 1.0% or greater, are listed on any of the following state Delaware Air Quality Management List (DE), Florida Toxic Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous w List (NJ), New York Hazardous Substances List (NY), Pennsylvania Exposures List (WA), Wisconsin Hazardous Substances List (WI).
15.8	Other Requirements:	damage if swallowed. Safety Phrases (S): 53-4	listed in Annex I of EU Directive 67/548/EEC: 16-65 – Irritating to eyes. Harmful: may cause lung 45 – Avoid exposure – obtain special instructions Inwell seek medical advice immediately (show the
		16. OTHER INFO	ORMATION
16.1	Other Information:	SERIOUS EYE IRRITATION. Wash hands and e Wear protective gloves/eye protection. IF SWAL vomiting. IF ON SKIN: Wash with plenty of wa contaminated clothing and wash it before reuse. contact lenses if present and easy to do. Continu	AND ENTERS AIRWAYS. CAUSES SKIN IRRITATION. CAUSES exposed skin areas with soap and warm water thoroughly after handling. LOWED: Immediately call a POISON CENTER/doctor. Do NOT induce ater. If skin irritation occurs: Get medical advice/attention. Take off IF IN EYES: Rinse cautiously with water for several minutes. Remove ue rinsing. If eye irritation persists: Get medical advice/attention. Store approved waste disposal plant. KEEP OUT OF REACH OF CHILDREN.
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.	
16.3	Disclaimer:	government regulations must be reviewed for an Tools USA, Inc.'s knowledge, the information accuracy, suitability or completeness is not guar provided. The information contained herein rela	SHA's Hazard Communication Standard, 29 CFR §1910.1200. Other oplicability to this product. To the best of ShipMate's & Harbor Freight contained herein is reliable and accurate as of this date; however, anteed and no warranties of any type, either expressed or implied, are ates only to the specific product(s). If this product(s) is combined with be considered. Data may be changed from time to time. Be sure to
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 TOOLS Quality Tools at Ridiculously Low Prices
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

Explosive

Flammable

Oxidizer

Pressurized

Corrosive

Toxic

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DEFINITION OF TERMS

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	POSURE 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	EASURES:							

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

HMIS-	III HEALTH, FLAMMABILITY & I	ALTH, 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:

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				3		
В						Н					8	
С	0		E.			I		F		2		
D	(Fr		E.			J	0	(I)				
Е						κ		(I)				
F			E-			X			supervisor or SOPs fo			
Sa	fety Glasse	s Splash Goggles			F	Face Shield & Protective Eyewear			Gloves			
	Boots		Synthetic Apron				tive Cloth	ing	Dust Respirator			
									Ŵ			
Full I	Face Respir	ator Dust & Vapor Half- Mask Respirator				Full Face Respirator			Airline Hood/Mask or SCBA			
OTHER STANDARD ABBREVIATIONS:												
	ML	Maxim	um Limit									
	mg/m3	milligra	ams per cu	ibic meter								
	NA	Not Av	ailable									
	ND	Not De	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

HAZARD	RATING	S:													
(0 Minimal Hazard							FL	AMN	ABILITY					
	1 Slight Hazard											REA	CTIVITY		
:	Moderate Hazard										1		/		
:	3 Sever										• /	X			
4	4 Extrem	Extreme Hazard							/	1	<u> </u>	ົ່ເ			
ACE	Acidic								X		\sim	۲,	/		
ALM	Alkalii	ne								\checkmark					
COF	R Corro	sive							ALT	. \ '	~/~				
¥	Use N										×	CDE	CIAL		
0)	K Oxidiz	zer											CAUTIONS		
TREFOI	L Radio	active													
TOXICOL	OGICAL	. INFO	ORM	AT	ION:										
		LD ₅₀	Leth s	Lethal Dose (solids & liquids) which kills 50% of the exposed animals \ensuremath{s}											
		LC ₅₀	Leth	Lethal concentration (gases) which kills 50% of the exposed animal											
		ppm	Con	ncen	tration	expre	essed i	n parts	of n	naterial p	er millior	n part	s		
		TD _{lo}	Low	Lowest dose to cause a symptom											
		CLo	Low	/est	concen	ntratio	n to ca	ause a	sym	ptom					
	LD _{lo} , & L		Low	/est	dose (c	or con	centra	tion) to	o cau	ise lethal	or toxic	effec	ts		
TC, TC	Co, LCIO, &		-												
		ARC							h on	Cancer					
		NTP			I Toxico										
		ECS	-					t Cherr	nical	Substan	ces				
		BCF	Bioconcentration Factor												
		TLm	Median threshold limit												
-	Kow or log		Coefficient of Oil/Water Distribution												
REGULA															
WHMIS								al Infor	matio	on Syster	n				
DO					ranspo	rtatio	n								
т															
EPA	_				rotectio										
DSI				omestic Substance List											
NOHSO			cupational Health and Safety Commission (Australia)												
NDSI			on-Domestic Substance List iority Substances List												
PSI															
TSCA			ubstance Control Act												
EL		European Union (European Union Dir							irective 67/548/EEC) n Water Hazard Class)						
WGł				-						,			. .		
HMIS-II					-					Materials			-		
0	۲) (<u>ð</u>)		Ð	1						R		
Class A	Class B	(Class (2	Class	5 D1	Clas	s D2	Class D3		Class E	E	Class F		
ompressed	Flammabl	e C	Oxidizing		Toxic		Irrit	Irritation		fectious	Corrosiv	ve	Reactive		
EC (67/54	8/EEC)	INFO	RMA		DN:										
		N	,	*		8		*		×		×			
C E		F	N			0		т	Xi		Xn				
Corrosive	Explosive	losive Flammable		ble	Harmful		Ovi	Oxidizing		Toxic		t I	Harmful		
								y		. 5/10	Irritant	`	nannu		
CLP/GHS									a P	(!)					
GHS01	GHS02	GHS	603	GHS04 GHS		IS05	GHS0		GHS07	GHS	S08	GHS09			

Harmful

Irritating

Health

Hazard

Environmer