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Prepared to OSHA, ACC, ANSI, WHSR, WHMIS, GHS & EU Standards SDS Revision: 3.1 SDS Revision Date: 1/31/2023

		1	PRODUC	T & COM	DANV	IDE	NITIE		TIO	NI.				
1.1	Product Name:				PANI	IDE	14 1 11	ICA	110	IN				
			BLACK [®]	SIEEL										
1.2	Chemical Name:	Acid Mixture												
1.3	Synonyms: Trade Names:		560250, 560251, 560258, 560250INT, 560258INT											
1.4	Product Use:		Presto Black® Steel, Presto Black MKP/RPL/PC9											
1.6	Distributor's Name:		Blackening Iron and Steel Birchwood Laboratories LLC											
1.7	Distributor's Address:			in MNI FEO.44	LICA									
1.8	Emergency Phone:		toad, Eden Prair			007 -	. Doi:			1.00.	4014	/0FF	204 4	740
1.9	Business Phone / Fax:		+1 (800) 424-9		13) 527-3	0 188	r Pois	son C	ontro	i Cen	ter +1	(855	281-1	742
1.9	business Phone / Fax:	+1 (952) 937	'-7900 / +1 (952 [']	937-7979										
			2. HA	ZARDS	DENT	IFIC	ATIO	NC						
2.1	Hazard Identification: Label Elements:	Canadian WH DANGER! T ORGANS TH LASTING EF Classification Hazard State damage. H37 Very toxic to	HMIS and Austra OXIC IF SWAL IROUGH PROL	alian Work Heal LOWED. CAL LONGED OR oral), Skin Cor of Toxic if sed damage to or long lasting ef	alth and S JSE SEVE REPEAT r. 1A, STO swallowed gans thro fects.	afety. ERE SI ED EX OT RE I. H314 ough pr	KIN BI (POSI 1, Chr 4 - Ca rolonge	URNS JRE. V ronic Adauses s auses s	OR EY ERY quatic severe epeate	YE DA TOXIO 1 skin ed exp	burns	and ey	CAUS	E DAMAGE TO E WITH LONG
2.3	Other Warnings:	eat, drink, or protective glo Get emerger all contamin contaminated keep comfc P305+P354+ present and contaminated treatment set Store locked	sposed skin area smoke when using specific protective concy medical help attended clothing. It clothing before prable for branch protection of the section 4 (first up. P501 – Dispose an exposure	ing this production thing/eye problems immediately. Immediately received reuse. P304-eathing. P31 (FS: Rinse with the rinsing. Paid) of this SE pose of contents.	tt. P273 – otection/fa P302+P3 inse with +P340 – I 6 – Ge th water f 319 – Get oS. P330 ts/ contain	Avoid I ace pro 61+P3 water F INH/et em or seve medica Rinse ner to a	releasing tection (154 – 167) r for (154 – 167) ALED: ergenomeral mal helpe Moutan app	e to the a. P301 F ON S several Remo cy me inutes. a if you t th. P39 proved v	enviro +P316 SKIN: Thin wer per edical Remonstreel un 1 – Constreel	onmen 6 – IF S Take contess. For the power contessed well. Follect sold dispos	nt. P280 SWALL off imm P363 - o fresh immo ntact le P321 - spillage sal plar	0 - Wea OWEI lediate - Was I air an ediatel enses, Specif P405	ar D: ly h d d y. if ic –	al poison control
		center, who n	nay seek advice	from the U.S.	manufac	turer, a	nd sh	ow ther	n this	SDS.	Keep			
		3. C	<u>OMPOSITI</u>	ON & INC	GREDI	ENT	INF	ORI						
							0111	1			IMITS IN			1
							GIH pm		NOHSC ppm			OSHA ppm	`	
						PI	J	ES-	ES-	ES-		PPIII		
CHEMI	CAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	TLV	STEL	TWA	STEL	PEAK		STEL	IDLH	OTHER
WATE	R	7732-18-5	ZC0110000	231-791-2	60-100	NE	NE	NF	NF	NF	NE	NE	NE	
		7702.00.0	1/07475000	221 074 7	11 F	(0.0)	NI A	(0.0)	NIE	NIE	(0.0)	NIA	NIA	
SELE	NIOUS ACID	7783-00-8	VS7175000 ral) 3; Acute Tox.	(inh) 3: STOT R	1-5	(0.2)	NA 1: Chr	(0.2)	NF	NF H301	(0.2)	NA 1373 H	NA 400 H4	1 10
		7697-37-2	QU5775000	231-714-2	1-5	Aqualic 2	4	2	NF	NF	2	NA	25	
NITRI	C ACID		in Corr. 1A; H272,		1. 5	-					-			
0000	ED (II) DUOCDUATE	7798-23-4	NA	232-254-5	1-5	(1)	NA	NF	NF	NF	(0.1)	NA	NA	FUME, DUST
COPP	ER (II) PHOSPHATE	Acute Tox. (o												
PHOS	PHORIC ACID	7664-38-2	TB6300000	231-633-2	1-5	(1)	(3)	NF	NF	NF	NA	NA	1000	
100		Metal Corr. 1;	Skin Corr.1B; H2	90, H314										
				FIRST AI	D ME	16111	DEC	<u> </u>						
4.1	First Aid:	Ingestion:	Do not induce	vomiting. Cal owered (forwa	l +1 (855) ard) to ke	281-1	742 f	or eme	rgency ring th	/ medi ne lunç	ical ad gs. Ca	vice. I	f vomiti for eme	ng occurs, keep ergency medical
		Eyes:	Remove and ominutes. Seek	discard contactimmediate me	t lenses i dical atte	ntion w	hen d	one rin	sing e	yes. `				r for at least 20
		Skin: Inhalation:	attention if any	blistering, swe	elling or o	pen so	res de	velop.				•		er. Seek medical thing occurs or if
			victim loses co						,,	,	,	-,		



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			4. FIRST	AID ME	EASU	RES -	cont'd	t				
4.2	Effects of Exposure:	Eyes:	Severe or perman					-				
		Skin:	Burns upon direct	•	3							
		Ingestion:	Severe burns of m	outh, throa	it, stoma	ch.						
		Inhalation:	Severe irritation or	burns in re	espirator	y tract and	mucous	membran	es. Pos	sible lung	g damag	e.
4.3	Symptoms of Overexposure:	Eyes:	Redness, burning,	irritation, a	and swell	ling around	l eyes					
		Skin:	Redness, burning,				١.					
		Ingestion:	Nausea, vomiting,									
		Inhalation:	Coughing, wheezi									
4.4	Acute Health Effects:	tract. May be	nful if inhaled. Mater e harmful if swallowe	d. Causes	burns. N	lay be harı					s and up	oper respirat
1.5 1.6	Chronic Health Effects:		the nervous systen									
.7	Target Organs: Medical Conditions		nervous system, kidn				. 41 4					
. 1	Aggravated by Exposure:		dermatitis, other ski s, skin, and respirat						LTH			
			e susceptible to the				y fullclio	FLAI	MMABI	LITY		
		, 20						PHY	SICAL	HAZAR	DS	
								PRO	TECTIV	/E EQU	IPMFN	Т
								EYES		SKIN	LUN	
.8	Notes to Physician:	This product	contains Selenious	Acid and is	s potentis	ally fatal if i	ngested e					
		be considere	ed in asymptomatic of failure may occur. 24	r minimally	symptor	nátic patie	nts as del	ayed toxid	effects	including	pulmor	
			5. FIRE	FIGHT	ING N	MEASU	RES					
5.1	Fire & Explosion Hazards:		ble. May react with n ensity fire; oxidizer.							mixtures	with	
5.2	Extinguishing Methods:		nguishing media app									_
		I AS WILL ALLY		ilio wear a			ve equipi	nent inclu	ung a i	NOUNIN	USH	
	Firefighting Procedures:	approved or as for surro degradation and/or deriva	fire, firefighters sho equivalent self-cont ounding materials. may produce oxide atives. Fire should be	ained brea Hazardo es of carbo e fought fro	thing appus decorate on, phoson a safe	paratus (Somposition phorous, so distance.	products elenium Keep co	I protective may be and/or ni ntainers o	e relea: trogen, cool unti	ng. Fight sed. The hydrocar well afte	fires ermal bons er the	3 2
	i rengiung Flocedures;	approved or as for surro degradation and/or deriva fire is out. L Prevent runo natural water	equivalent self-cont ounding materials. may produce oxide atives. Fire should be Use water spray to co off from fire control of rway.	tained brea Hazardo es of carbo e fought fro cool fire-ex or dilution f	thing appus decorder, phoson a safe posed suffrom enter	paratus (Somposition phorous, se distance. urfaces and ering sewe	products selenium Keep co d to prote rs, drains	d protectives may be and/or ni ntainers cot person drinking	e releas trogen, cool unti al. Figh	ng. Fight sed. The hydrocar well afte nt fire upv	fires ermal bons er the wind.	3 2
5.3		approved or as for surro degradation and/or deriva fire is out. L Prevent runo natural water	equivalent self-contounding materials. may produce oxide atives. Fire should but Jse water spray to off from fire control orway. 6. ACCIDEN	tained brea Hazardo es of carbo e fought fro cool fire-ex or dilution f	thing appus decoration, phoson a safe posed suffrom enter	paratus (S emposition phorous, see distance. urfaces and ering sewe	products selenium Keep co d to prote rs, drains	I protective may be and/or ni ntainers of the person of the distribution of the protect person of the person of the protect person of the pers	e releas trogen, cool unti al. Figh water s	ng. Fight sed. The hydrocar well afte the tire upv supply, or	fires ermal bons er the wind.	3 2
5.3	Spills:	approved or as for surro degradation and/or derivative fire is out. Uprevent runo natural water Before cleani (PPE). Use etc.) to preves Small Spills: inert materia Large Spills: release. Iso done with materia Recover as	equivalent self-cont ounding materials. may produce oxide atives. Fire should be Use water spray to co off from fire control of rway.	Hazardo es of carbo es of carbo e fought fro cool fire-ex or dilution f HAZAR ITAL R Individuals fety goggle protective es es or sand to materials of ard area an appropriate possible al	thing appus decoron, phoson a safe posed suffered enter and face equipment o soak up (e.g., organd keep exprotection decollection of the collection of the c	paratus (Somposition phorous, se distance, curfaces and ering sewer in spill clear ce shield; untincluding to the production and the production an	products selenium Keep cod to prote rs, drains ASUF anup mus use gloves a cot and plate as oil) as ed person ent include	d protective may be and/or ni ntainers of the person of th	e release trogen, cool until al. Fight water se coropriate er protective eye contain spill. Staff area. ratory p	ng. Fight sed. The hydrocari well afte at fire upo supply, or e Persona etive cloth ewear. Uer for late ay upwing Stop spil rotection	fires ermal bons or the wind. any all Protecting (e.g. see a noor disposed and avil or releas cone	., apron, boo n-combustib cal. way from spil ase if it can ditions warra
		approved or as for surro degradation and/or derivative fire is out. Uprevent runo natural water Before cleani (PPE). Use etc.) to prevent surrous etc.) to prevent surrous inert materia Large Spills: release. Iso done with materia discharging in the surrous discharging in the surrous experience.	equivalent self-contounding materials. may produce oxide atives. Fire should but the self-control of from fire control of from fire from	Hazardo Haz	thing appus decoron, phosom a safe posed surfrom enter involved as and face equipment o soak up (e.g., organd keep a protection decolection of collections and safe equipment of soak up (e.g., organd keep a protection of collections are uniformly safe and collections are uniformly safe and safe are upon the safe and safe are upon the s	paratus (Somposition phorous, se distance. urfaces and ering sewer sewering sewering sewering sewering sewering transpill clear to the production and the production of the pr	products selenium Keep cod to prote rs, drains anup mus use gloves a cot and pla a col person ent inclusesistant co	RES t wear apps and other and protect and	e release trogen, cool until al. Fight water se coropriate er protective eye contain spill. Staff area. ratory p	ng. Fight sed. The hydrocari well afte at fire upo supply, or e Persona etive cloth ewear. Uer for late ay upwing Stop spil rotection	fires ermal bons or the wind. any all Protecting (e.g. see a noor disposed and avil or releas cone	., apron, boo n-combustib cal. way from spil ase if it can ditions warra
6.1		approved or as for surro degradation and/or derivative fire is out. Uprevent runo natural water Before cleani (PPE). Use etc.) to prevent survey and Spills: inert materia Large Spills: release. Iso done with materia Large surrous discharging in Avoid breath of the reach expose to he	equivalent self-contounding materials. may produce oxide atives. Fire should but the self-control of from fire control of from fire from fire control of from fire from	Hazardo Haz	thing appus decoron, phoson a safe posed suffered entry and face equipment of soak up (e.g., organ decorrection of collection of smoke or smoke	paratus (Somposition phorous, se distance, curfaces and ering sewer in spill cleace shield; untincluding to the product anics such unauthorizing equipment in acid-relaters.	products selenium Keep cod to prote rs, drains ASUF anup mus use gloves a cot and plate as oil) at ed person ent includes istant company to the company to	RES and other and protect and	er release trogen, sool until al. Fight water se propriate er protective eye contain spill. Staff area. ratory puse abs	ng. Fight sed. The hydrocari well afte at fire upon the present of	fires from all bons for the wind. From any all Protecting (e.g. dise a not reliable as controlled as controlled as controlled and avail for releasing the astronomy after the district as the controlled as the co	n-combustible al. way from spillase if it can ditions warran residue. Av
5.3	Spills:	approved or as for surro degradation and/or derivative fire is out. Uprevent runo natural water Before cleani (PPE). Use etc.) to prevent surrous and Spills: inert materia Large Spills: release. Iso done with materia discharging in the surrous described in the surrous desc	equivalent self-contounding materials. may produce oxide atives. Fire should but the self-control of from fire control of from fire from	Hazardo Bes of carbo Bes of	thing appus decoron, phoson a safe posed surfrom enter involved as and face equipment o soak up (e.g., organd keep a protection decorrection of the containers of the containe	paratus (Somposition phorous, se distance. curfaces and ering sewer in spill clear ce shield; untincluding to the production anics such unauthorizing the production of the pr	products selenium Keep cod to prote rs, drains and prote rs, drains as gloves a set and place and prote red includes stant company of the pout of the red prote red in the pout of the pout of the pout of the red prote red in the pout of the pout of the red prote red in the pout of the pout of the red in the red protect red in the red i	d protective equiperson use. A protective equiperson to the control of the contro	er release trogen, sool unti- al. Fight water services trove eye contain spill. Staff area. ratory pure absolute to for child fans) avvoid ter	ng. Fight sed. The hydrocarl well after the hydrocarl well after the hydrocarl well after the hydrocarl property of the hydrocarl well as the hydrocarl we	fires ermal bons or the wind. Frotecoing (e.g. see a noer disposed and awall or release as concepted up as con	n-combustition of the combustition of the comb
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7.1	Spills: Work & Hygiene Practices: Storage & Handling: Special Precautions:	approved or as for surro degradation and/or derivative fire is out. Uprevent runo natural water Before cleani (PPE). Use etc.) to preve Small Spills: inert materia Large Spills: release. Iso done with materia containing the second of the reach expose to be decontamina Use and store Store in acid Keep away fire Empty contains. 8. EXPC	equivalent self-contounding materials. may produce oxide atives. Fire should but the self-control of the s	rained brea Hazardo es of carbo e fought fro cool fire-ex or dilution function for the following service of the following service et and area are appropriate possible and area are appropriate possible and sewer or substances (see conjuly in vertilated less. Keep conjuly in vertilated less keep conjuly in vert	thing appus decoon, phosom a safe posed surfrom enter involved as and fact equipment o soak up (e.g., organism of the control	paratus (Somposition phorous, se distance. curfaces and ering sewer in spill clear ce shield; until including to the produlanics such unauthoriz ve equipment in acid-relaters. E INFC contact. W when han areas. Kee e.g., local excovered vision 10). Pridues. Kee ERSON	products selenium Keep cod to prote rs, drains and plate and person ent includes stant company and possible pout of the exhaust when not object concepts are possible pout of the exhaust when not object and plate and	d protective and/or ni ntainers of ct person of the control of the	er release trogen, sool untial. Fight water services exervised troportion of the services exervised exervised troportion of the services exervised exervised exervised exervised exervised exervised exervised exervised exervised exercised exervised	ng. Fight sed. The hydrocari well after the hydrocari way from the hydrocari way	fires ermal bons or the wind. From any all Protecting (e.g. lse a now or disposed and away as controlled as contro	n-combustition of the combustition of the comb
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	8. I	EXPOSURE CONTROLS & PERSONAL PROTECTION – cont'd
8.2	Ventilation & Engineering Controls:	Use local or general exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from th handling of this product. Ensure appropriate decontamination equipment is available (e.g., sink, safety shower, eye-was station).
8.3	Respiratory Protection:	In instances where vapors or sprays of this product are generated, 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.
8.4	Eye Protection:	Safety glasses with side shields must be used when handling or using this product. A protective face shield is also recommended.
8.5	Hand Protection:	Wear protective, chemical-resistant gloves (e.g., neoprene) when using or handling this product.
8.6	Body Protection:	A chemical resistant apron and/or protective clothing are recommended when handling or using this product.
		9. PHYSICAL & CHEMICAL PROPERTIES
9.1	Appearance:	Clear, blue liquid
9.2	Odor:	Odorless
9.3	Odor Threshold:	0.29 to 0.98 ppm (Nitric Acid)
9.4	pH:	0.85
9.5	Melting Point/Freezing Point:	NA NA
9.6	Initial Boiling Point/Boiling	> 100 °C (> 212 °F)
9.7	Range: Flashpoint:	, ,
9.8	Upper/Lower Flammability	NA
0.0	Limits:	NA NA
9.9	Vapor Pressure:	NA NA
9.10	Vapor Density:	< 1.0 (air = 1.0)
9.11	Relative Density:	1.055
9.12	Solubility:	Complete (water)
9.13	Partition Coefficient (log Pow):	NA
9.14	Autoignition Temperature:	NA LAIA
9.16	Decomposition Temperature: Viscosity:	NA NA
9.17	Other Information:	NA Evaporation Rate: < 1.0 (ethyl ether = 1.0)
		L vaporation reate. < 1.0 (ethyr ether = 1.0)
		10. STABILITY & REACTIVITY
10.1	Stability:	Stable at normal temperatures.
10.2	Hazardous Decomposition Products:	Reaction with organics and strong reducing agents can produce organoselenides and hydrogen selenide. Therma decomposition may produce selenium, nitrogen, phosphoric and copper oxides.
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid:	Excessive heat, shock, friction.
10.5	Incompatible Substances:	Cyanides, water-reactive substances, strong reducing agents, chlorinated cleaners or sanitizers, combustible organi materials, most metals.
		11. TOXICOLOGICAL INFORMATION
11.1	Routes of Entry:	Inhalation: YES Absorption: YES Ingestion: NO
11.2	Toxicity Data:	Phosphoric Acid: LD ₅₀ (oral, rat) = 1530 mg/kg; LD ₅₀ (oral, rat) = 4640 mg/kg
11.3	Acute Toxicity:	See Section 4.4
11.4	Chronic Toxicity:	See Section 4.5
11.5	Suspected Carcinogen:	Selenious Acid is listed by IARC on Group 3 (not classifiable as to its carcinogenicity to humans)
11.6	Reproductive Toxicity: Mutagenicity:	This product is not reported to cause reproductive toxicity in humans. This product is not reported to produce mutagenic effects in humans.
	Embryotoxicity:	This product is not reported to produce mutagenic effects in humans. This product is not reported to produce embryotoxic effects in humans.
	Teratogenicity:	This product is not reported to produce embryotoxic effects in humans. 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:	See Section 4.2
11.8	Biological Exposure Indices:	NE
11.9	Physician Recommendations:	This product contains <u>Selenious Acid</u> and is potentially fatal if ingested even in small amounts. 24-hour admission shoul be considered in asymptomatic or minimally symptomatic patients as delayed toxic effects including pulmonary edema an multi-organ failure may occur. 24/7 medical toxicology consultation is available at +1 (855) 281-1742.



15.8

Other Requirements:

NA

SAFETY DATA SHEET

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Prepared to OSHA, ACC, ANSI, WHSR, WHMIS, GHS & EU Standards SDS Revision Date: 1/31/2023 SDS Revision: 3.1 12. ECOLOGICAL INFORMATION 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: Very toxic to aquatic life with long lasting effects. Phosphoric Acid: EC₅₀ (Daphnia magna, 12h) = 4.6 mg/L 13. DISPOSAL CONSIDERATIONS 13.1 Waste Disposal: Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 2. Any disposal practice must be in compliance with local, state, and federal laws and regulations. Contact the appropriate agency for specific information. Treatment, transport, storage and disposal of hazardous waste must be provided by a licensed facility or waste hauler. 13.2 Special Considerations: U.S. EPA Hazardous Waste - Characteristic - Corrosive (D002), Characteristic - Toxic (D010) 14. TRANSPORTATION INFORMATION The basic description (ID Number, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR. 49 CFR (GND): UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOUS ACID, PHOSPHORIC ACID), 8, III, LTD QTY (IP VOL ≤ 5.0 L) 14.2 IATA (AIR): UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOUS ACID, PHOSPHORIC ACID), 8, III, LTD QTY (IP VOL ≤ 0.5 L) IMDG (OCN): 14.3 UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOUS ACID, PHOSPHORIC ACID), 8, III, LTD QTY (IP VOL ≤ 5.0 L) MARINE POLLUTANT 14.4 TDGR (Canadian GND): UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOUS ACID, PHOSPHORIC ACID), 8, III, LTD QTY (IP VOL ≤ 5.0 L) ADR/RID (EU): 14.5 UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOUS ACID, PHOSPHORIC ACID), 8, III, LTD QTY (IP VOL ≤ 5.0 L) 14.6 SCT (MEXICO): UN3264, LIQUIDOS, CORROSIVOS, ACIDO, INORGANICO, N.E.P. (ACIDO SELENIO, ACIDO FOSFORICO), 8, III, CANTIDAD LIMITADA (IP VOL ≤ 5.0 L) 14.7 ADGR (AUS): UN3264, CORROSIVE LIQUIDS, ACIDIC, INORGANIC, N.O.S. (SELENIOUS ACID, PHOSPHORIC ACID), 8, III, LTD QTY (IP VOL ≤ 5.0 L) 15. REGULATORY INFORMATION 15.1 SARA Reporting Requirements: This product contains Selenious Acid, Nitric Acid and Phosphoric Acid, substances subject to SARA Title III, section 313 reporting requirements. 15.2 SARA TPQ: 302 TPQ (Nitric Acid): 1,000 lbs (454 kg) TSCA Inventory Status: 15.3 The components of this product are listed on the TSCA Inventory. CERCLA Reportable Quantity: 15.4 Selenious Acid: 10 lbs (4.54 kg); Nitric Acid: 1,000 lbs (454 kg); Phosphoric Acid: 5,000 lbs (2,270 kg) 15.5 Other Federal Requirements: 15.6 Other Canadian Regulations: This product has been classified according to the hazard criteria of the HPR and the SDS contains all of the information required by the HPR. 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 Class E (Corrosive Material). WHMIS Class D1 (Materials Causing Immediate and Serious Toxic Effects). State Regulatory Information: Selenious Acid is found on the following state criteria lists: Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Minnesota Hazardous Substances List (MN), Pennsylvania Right-to-Know List (PA), and Wisconsin Hazardous Substances List (WI). Nitric Acid is found on the following state criteria lists: FL, MA, MN, New Jersey Right-to-Know List (NJ), PA, and Washington Permissible Exposures List (WA). Phosphoric Acid is found on the following state criteria lists: FL, MA, MN, PA. No other ingredients in this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances

more information go to www.P65Warnings.ca.gov

List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (WI). This product does not contain any chemicals known to the State of California to cause cancer or other reproductive harm. For



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		16. OTHER INF	ORMATION
16.1	Other Information:	ORGANS THROUGH PROLONGED OR REP LASTING EFFECTS. Obtain, read, and dust/mist/fume/vapor/spray. Wash hands and ex not eat, drink, or smoke when using this production of eat, drink, or smoke when using this production of eat, drink, or smoke when using this production of eat, drink, or smoke when using this production of eat, and eat of eath	EVERE SKIN BURNS OR EYE DAMAGE. MAY CAUSE DAMAGE TO EATED EXPOSURE. VERY TOXIC TO AQUATIC LIFE WITH LONG follow all safety instructions before use. Do not breathe posed skin areas with soap and warm water thoroughly after handling. Do but the Avoid release to the environment. Wear protective gloves/ protective LLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN: Take off ately rinse with water for several minutes. Wash contaminated clothing iterat aid) of this SDS. IF INHALED: Remover person to fresh air and keep the water for several minutes. Remove contact lenses, if present and easy mediately. Specific treatment see section 4 (first aid) of this SDS. Collect I.
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.	
16.3	Disclaimer:	government regulations must be reviewed for Technologies' knowledge, the information conta suitability or completeness is not guaranteed at The information contained herein relates only to	OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other applicability to this product. To the best of ShipMate's & Birchwood lined herein is reliable and accurate as of this date; however, accuracy, and no warranties of any type, either expressed or implied, are provided. the specific product(s). If this product(s) is combined with other materials, Data may be changed from time to time. Be sure to consult the latest
16.4	Prepared for:	Birchwood Technologies 7900 Fuller Road Eden Prairie, MN 55344 USA Tel: +1 (952) 937-7900 Fax: +1 (952) 937-7979 http://www.birchwoodtechnologies.com	BIRCHWOOD
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	ShipMate* Dangerous Goods Training & Consulting



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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
RTECS No.	Registry of Toxic Effects of Chemical Substances Number
EINECS No.	European Inventory of Existing Commercial Chemical Substances Number

EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists			
IDLH	Immediately Dangerous to Life and Health			
NOHSC	National Occupational Health and Safety Commission (Australia)			
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 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.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

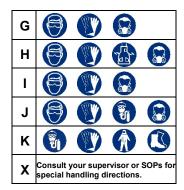
HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard



PERSONAL PROTECTION RATINGS:

Α			
В			
С			
D			
E			
F		THE STATE OF THE S	





OTHER STANDARD ABBREVIATIONS:

Carc	Carcinogenic
Irrit	Irritant
NA	Not Available
NR	No Results
ND	Not Determined
NE	Not Established
NF	Not Found
SCBA	Self-Contained Breathing Apparatus
Sens	Sensitization
STOT RE	Specific Target Organ Toxicity – Repeat Exposure
STOT SE	Specific Target Organ Toxicity – Single Exposure

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

HAZARD RATINGS:

0	Minimal Hazard	FLAMMABILITY
1	Slight Hazard	· =
2	Moderate Hazard	REACTIVITY
3	Severe Hazard	
4	Extreme Hazard	
ACD	Acidic	
ALK	Alkaline	
COR	Corrosive	/ \ \ \ \
W	Use No Water	HEALTH 🔪
OX	Oxidizer	SPECIAL
TREFOIL	Radioactive	PRECAUTIONS

TOXICOLOGICAL INFORMATION:

LD ₅₀	Lethal Dose (solids & liquids) which kills 50% of the exposed animals			
LC ₅₀	Lethal concentration (gases) which kills 50% of the exposed animal			
ppm	Concentration expressed in parts of material per million parts			
TD _{Io} Lowest dose to cause a symptom				
TCLo Lowest concentration to cause a symptom				
TD _{Io} , LD _{Io} , & LD _o or	or Lowest dose (or concentration) to cause lethal or toxic effects			
TC, TCo, LCio, & LCo				
IARC	International Agency for Research on Cancer			
NTP	National Toxicology Program			
RTECS	Registry of Toxic Effects of Chemical Substances			
BCF	Bioconcentration Factor			
TLm	Median threshold limit			
log Kow or log Koc	Coefficient of Oil/Water Distribution			

REGULATORY INFORMATION:

WHMIS	Canadian Workplace Hazardous Material Information System			
DOT	U.S. Department of Transportation			
TC	Transport Canada			
EPA	U.S. Environmental Protection Agency			
DSL	Canadian Domestic Substance List			
NDSL	Canadian Non-Domestic Substance List			
PSL	Canadian Priority Substances List			
TSCA	CA U.S. Toxic Substance Control Act			
EU	European Union (European Union Directive 67/548/EEC)			
WGK	Wassergefährdungsklassen (German Water Hazard Class)			

WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:

	(A)	(2)	(3)	\odot	(4)		(R)
Class A	Class B	Class C	Class D1	Class D2	Class D3	Class E	Class F
Compressed	Flammable	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive

CLP/GHS (1272/2008/EC) PICTOGRAMS:

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