

PORTAGE WASTEWATER TREATMENT PLANT
Respiratory Hazard Assessment and Respirator Selection For “ACIDS”

Chemical Name	Contents	%	Exposure Limit	Vapor Pressure	Hazard	Condi on Of Use	Duration	Respirator Required or Voluntary
Acetic Acid 50%	Water 50 % Acetic Acid 50 %	50 % 50 %	10 ppm	None	Burn, Strong Order	Venting	Start to clean up < 1 Hour	None
Acid Reagent	Water Acetic Acid Sodium Acetate	37 % 48 % 15 %	10 ppm	None	Burns Irritant	Venting	Start to clean up < 1 Hour	None
Ammonium Chloride	Ammonium Chloride Water	< 1 % >99 %	10 ppm	None	Irritant Low Health Risk	Venting	Start to clean up < 1 Hour	None
KML 8914 (Polymer) Acrylamide	Acrylamide & Adam methyl Chloride LPA Oil Water Nonyl Phenol surfactant Surfactant	40- 50% 25- 58% 21- 35% 1-3% 1-3%	None	None	Irritant Slippery Low Health Risk	None	Start to clean up < 7Hour	None
Ammonium Molybdate 4%	Ammonium Molybdate Water	99% 1%	5 mg mo/cu.m	Same as water	Irritant Low Health Risk	Venting	2 X Week < 30 min.	None
Ammonia Persulfate	Ammonia Persulfate	100 %	0.5mg/m3	None	Burns, Oxidizer	Venting	2 X Week < 30 min.	None
Antimony Potassium Tartrate	Antimony Potassium Tartrate	100 %	0.5mg/m3	None	Irritant Low Health Risk	Venting	2 X Week < 30 min.	None
Ammonia Standard 3 ppm	Ammonia Chloride Water	>99.5% <0.5%	50 ppm	Same as water	Irritant Low Health Risk	Venting	2 X Week < 30 min.	None

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Ammonia Standard 100 ppm	Ammonia Chloride Water	>99.5% <0.5%	50 ppm	Same as water	Irritant Low Health Risk	Venting	2 X Week < 30 min.	None
Ammonia Standard 1000 ppm	Ammonia Chloride Water	>99.5% <0.5%	50 ppm	Same as water	Irritant Low Health Risk	Venting	2 X Week < 30 min.	None
Ascorbic Acid	Ascorbic Acid	100%	None	None	Irritant Low Health Risk	Venting	2 X Week < 5 min.	None
Buffer Solution 4.0	Potassium Acid Phthalate	1.0% By Weight	None	Same as water	Corrosive Irritant Burns	Venting	7Xweek <5mon.	None
Calcium Chloride 27.5g/l	Calcium Chloride	None	None	Same as water	Irritant Low Health Risk	Venting	Seldom <5min	None
Car Wash and Wax	2- Butoxyethanol	>1.0%	50 ppm	None	Irritant Low Health Risk	None	1x Week 1Hour	None
KML 8900 (Polymer)	Cationic Acrylamide copolymer Emulsion in Hydrocarbon oil	None	100ppm (as solvent in air)	0.13mm Hg@60F.	Irritant Low Health Risk	Venting	2X Week 6Hours	None
ChemTreat P-835E	Petroleum Distillate Hydrotreated Light Cationic Polyacrylamide	24% 40.7%	None	None	Irritant Low Health Risk	Venting	2X Week 6Hours	None

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Chlorine Standard 100ppm	Potassium Iodate Water	99.9% 0.1%	None	None	Burns Irritant Low Health Risk	Venting	Daily from May-Sept. <30min	None
Continental Joes Industrial Cleaner	None	None	None	None	Irritant Low Health Risk	Venting	1x Week 1Hour	None
Dermagel Sanitizer Hand Sanitizer	None	None	None	None	None	None	Seldom <2Min	None
Destroyer	d-Limonene	94-98%	None	1.2 mm/Hg	Irritant Low Health Risk	Venting	Monthly 2 to 3 hours	None
Diesel Fuel#2	C9-C16 Hydrocarbons 1,2,4-Trimethylbenzene Biphenyl Naphthalene Xylenes Cumene Toluene	None 0.6% 0.3% 0.2% 0.2% Trace Trace	None 25ppm 8H. 0.2ppm 8H. 10ppm 8H. 100ppm 8H. 50ppm 8H. 200ppm 8H.	2.6mmHGat 122F.	Irritant Inhalation Flammable	Venting Large Room OutDoor	<15 min to fill Equipment up.	None
Drierite (Indicating)	Cobaltous Chloride	3%	0.1mg/M3	None	Irritant Inhalation Low Health Risk	Venting	Seldom <5min	None
Duraflex Lube	Aliphatic Petroleum Distillate	>20%	None	<0.01	Irritant Low Health Risk	None	Seldom <15Min	None

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Erusteor	Hydrochloric Acid Phosphoric Acid Oxalic Acid Water Ethoxylated Nonylphenol Xanthan Gum	<5% <20% None None None None	None 1MG/M ³ 1MG/M ³ None None None	None	Burns Irritant Inhalation	Venting Large Room	Seldom <30Min	None
Ferric Chloride 0.25G/L	Ferric Chloride Water	0.25G per Liter	1mg(Fe) /cu.m.	None	Burns Irritant Inhalation	Venting Large Room	Seldom <5Min	None
Ferric Sulfate Solution	Ferric Sulfate Sulfuric Acid Water	36-43% 0-0.5% 56-64%	1mg/m ³ 1mg/m ³ None	None	Burns Irritant Inhalation Corrosive	Venting Large Room	4X Year 1 to 2 Hours	None
Hach Powder Pillow BOD	D. Water Potassium Nitrate	80-90% 10-20%	None None	None	Low Health Risk	Venting Large Room	Daily <5min	None
Glucose- Glutamic Acid	Glucose Glutamic Acid	None None	None None	None	Low Health Risk	Venting Large Room	Daily <5min	None
Healthy Hands Foam Sani-50ml	Cocamidopro pyl Betaine Amine Oxide	None None	None None	None	Low Health Risk Irritant	None	Seldom <5Min	None
Hydrochloric Acid	Hydrogen Chloride	31.45%	5ppm	35mmHg @77F.	Burns Irritant Inhalation Corrosive	Venting Large Room	Daily <15Min	None

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Kemira PIX-312 Ferric Sulfate Solution	Ferric Sulfate Sulfuric Acid	50-65% <0.25%	1mg/m3 1mg/m3	None	Irritant Inhalation Corrosive	Venting Large Room	4X year <15Min	None
Magnesium Sulfate 22.5g/l	Magnesium Sulfate Water	22.5% 77.5%	None	None	Low Health Risk Irritant	Venting Large Room	Seldom <5Min	None
Magnesium Chloride	Magnesium Chloride Water	81.4% 18.6%	None	None	Low Health Risk Irritant	Venting Large Room	Seldom <5Min	None
Manganous Sulfate Solution	Manganous Sulfate Water	36.4% 63.6%	None	None	Low Health Risk Irritant	Venting Large Room	Seldom <5Min	None
Marc Speed Wipes	None	None	None	None	Low Health Risk Irritant	None	Seldom <5Min	None
North Woods Blue Spruce Bowl Cleaner	Hydrochloric Acid Quaternary Ammonium Chloride	9% 0.051%	5ppm None	25mmHg @68F	Corrosive Burns Irritant	Venting Large Room	Weekly 30Min	None
North Woods Derma Hand Sanitizer	Dimethicone Benzethonium Chloride	0.1-5% 0.2%	None	None	Irritant	None	Daily <5Min	None
North Woods Sun Drop (Cleaner)	Isopropyl Alcohol Quaternary Ammonium Chloride	0-5% 2%	400ppm None	20mmHg @68F	Irritant	Venting	Weekly 1-3Hours	None

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Starch Indicator Solution 2%	Starch Indicator Water	2% 98%	None	None	Irritant Inhalation Low Health Risk	Venting Large Room	Seldom <5Min	None
Sulfuric Acid Conc.	Sulfuric Acid Water	96% 4%	1mg/m3	1mmHg @146C	Corrosive Burns Irritant Inhalation	Venting Large Room	Daily <15Min	None
Sulfuric Acid 5N	Sulfuric Acid Water	14% 86%	1mg/m3	1mmHg @146C	Corrosive Burns Irritant Inhalation	Venting Large Room	2X Week <10Min	None
Sulfuric Acid 11N	Sulfuric Acid Water	30% 70%	1mg/m3	1mmHg @146C	Corrosive Burns Irritant Inhalation	Venting Large Room	2X Week <10Min	None
Biatron	Sulfuric Acid	60- 100%	1mg/m3	1.7mmHg	Corrosive Burns Irritant Inhalation	Venting Large Room	Seldom When needed <5min	None
United 629 Grunge Grippers (hand cleaner wipes)	d-1,8(9)-p-menthadiene	<6%	None	None	Irritant	Low health risk	When needed	None
United 369 Handy-D-Wipes	Ethyl Alcohol	10- 30%	1000ppm	None	Irritant	Low health risk	When needed	None
United 717 Descalar	Inhibited Hydrochloric Acid	<40%	None	5.65@60 F	Corrosive Burns Irritant Inhalation	Venting Large Room	Seldom When needed <15min	None

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United 650 Descaling Wipes	Inhibited Hydrochloric Acid	<40%	None	5.65@68F	Burns Irritant Inhalation	Venting Large Room	Seldom When needed <15min	None
United 650 Non-fuming cleaner and descaler	Phosphoric acid	40-70%	1mg/m3	5.65mmHg	Burns Irritant Inhalation Corrosive	Venting Large Room	Seldom When needed <30min	None

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