spectrum®



SAFETY DATA SHEET

Preparation Date: 11/05/2019

Revision date 11/05/2019

Revision Number: G1

1. IDENTIFICATION Product identifier Product code: P-361 **Product Name:** PHENYLARSINE OXIDE, 0.0375 N Other means of identification No information available Synonyms: CAS #: Mixture **RTECS #** Not available Not available CI#: Recommended use of the chemical and restrictions on use Recommended use: No information available. No information available Uses advised against Supplier: Spectrum Chemical Mfg. Corp 14422 South San Pedro St. Gardena, CA 90248 (310) 516-8000 Order Online At: https://www.spectrumchemical.com Chemtrec 1-800-424-9300 Emergency telephone number Tom Tyner (USA - West Coast) Contact Person: Ibad Tirmiz (USA - East Coast) **Contact Person:**

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A

Label elements

Warning

Hazard statements Causes skin irritation Causes serious eye irritation



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. IF ON SKIN: Wash with plenty of water If skin irritation occurs: Get medical attention Take off contaminated clothing and wash it before reuse

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Water	7732-18-5	98.92
Hydrochloric Acid	7647-01-0	0.4
Sodium Hydroxide	1310-73-2	0.35
Phenylarsine Oxide	637-03-6	0.33

4. FIRST AID MEASURES

First aid measures

General Advice:	National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.		
Skin Contact:	Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.		
Eye Contact:	Flush eyes with water for 15 minutes. Get medical attention.		
Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.		
Ingestion:	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.		
Most important symptoms and effects, both acute and delayed			
Symptoms	Causes serious eye irritation		

Indication of any immediate medical attention and special treatment needed

Notes to Physician:

Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES				
Extinguishing Media Suitable Extinguishing Media:	The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.			
Unsuitable Extinguishing Media:	No information available.			
Specific hazards arising from the chemical				
Hazardous combustion products	No information available.			
Specific hazards	Sodium hydroxide reacts to form explosive products with ammonia + silver nitrate. Benzene extract of allyl benzenesulfonate prepared from allyl alcohol, and benzene sulfonyl chloride in presence of aquesous sodium hydroxide, under vacuum distillation, residue darkened and exploded. Sodium Hydroxde + impure tetrahydrofuran, which can contain peroxides, can cause serious explosions. Dry mixtures of sodium hydroxide and sodium tetrahydroborate liberate hydrogen explosively at 230-270°C. Sodium Hydroxide reacts with sodium salt of trichlorophenol + methyl alcohol + trichlorobenzene + heat to cause an explosion. (Sodium hydroxide).			
Special Protective Actions for Firefighters				
Specific Methods:	No information available			
Special Protective Equipment for Firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear			

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:	Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Remove all sources of ignition.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.
Methods and material for conta	nment and cleaning up
Methods for containment	Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.
Methods for cleaning up	Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not ingest. Do not breathe vapors or spray mist. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:

Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Water	7732-18-5	None	None	None	None
Hydrochloric Acid	7647-01-0	5 ppm Ceiling 7 mg/m³ Ceiling	5 ppm Ceiling 7 mg/m³ Ceiling	2 ppm Ceiling	Not determined
Sodium Hydroxide	1310-73-2	2 mg/m³ TWA	2 mg/m ³ Ceiling	2 mg/m ³ Ceiling	None
Phenylarsine Oxide	637-03-6	None	None	None	None

Canada

	Component	CAS No	Canada - Alberta	Canada - British	Canada - Ontario	Canada - Quebec
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			Columbia		
Water	7732-18-5	None	None	None	None
Hydrochloric Acid	7647-01-0	2 ppm Ceiling	2 ppm Ceiling	2 ppm Ceiling	5 ppm Ceiling
		3 mg/m ³ Ceiling			7.5 mg/m ³ Ceiling
Sodium Hydroxide	1310-73-2	2 mg/m ³ Ceiling			
Phenylarsine Oxide	637-03-6	None	None	None	None

Australia and Mexico

Component	CAS No	Australia	Mexico
Water	7732-18-5	None	None
Hydrochloric Acid	7647-01-0	5 ppm Peak 7.5 mg/m³ Peak	5 ppm Ceiling 7 mg/m³ Ceiling
Sodium Hydroxide	1310-73-2	None	2 mg/m ³ Ceiling
Phenylarsine Oxide	637-03-6	None	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection:	Goggles or Safety glasses with side-shields.	
Skin and body protection:	Chemical resistant apron Gloves Long sleeved clothing	
Respiratory protection:	Vapor respirator. Be sure to use an approved/certified respirator or equivalent.	
Hygiene measures:	Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product When using, do not eat, drink or smoke.	

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Appearance:	Color:
Liquid	Clear.	Slightly yellow.
Odor:	Taste	Formula
Molecular/Formula weight (g/mole):	Flammability (solid, gas)	Flashpoint (°C/°F):
No information available	no data available	No information available
Flash Point Tested according to:	Autoignition Temperature (°C/°F):	Lower Explosion Limit (%):
Not available	No information available	No information available
Upper Explosion Limit (%):	Melting point/range(°C/°F):	Decomposition temperature(°C/°F):
No information available	No information available	No information available
Boiling point/range(°C/°F): The lowest known value is 100°C/212°F (water)	Bulk density: No information available	Density (g/cm3): No information available

Specific gravity:	pH	Vapor pressure @ 20°C (kPa):
The only known value is 1 (water)	Neutral	The highest known value is 2.3 (water)
Evaporation rate:	Vapor density:	VOC content (g/L):
No information available	The highest known value is 0.62 (water)No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): No information available	Viscosity: No information available
Miscibility: No information available	Solubility: Easily soluble in cold water Easily soluble in hot water	

10. STABILITY AND REACTIVITY

Reactivity

Hygroscopic. Much heat is evolved when solid material is dissolved in water. Therefore cold water and caution must be used for this process.

Generates considerable heat when a sodium hydroxide solution is mixed with an acid.

Sodium hydroxide solution and octanol + diborane during a work-up of a reaction mixture of oxime and diborane in tetrahyrofuran is very exothermic, a mild explosion being noted on one occassion.

Reactive with water, acids (mineral, non-oxidizing, e.g. hydrochloric, hydrofluoric acid, muriatic acid, phosphoric), acids (mineral, oxidizing e.g. chromic acid, hypochlorous acid, nitric acid, sulfuric acid), acids (organic e.g. acetic acid, benzoic acid, formic acid, methanoic acid, oxalic acid), aldehydes (e.g. acetaldehyde, acrolein, chloral hydrate, foraldehyde), carbamates (e.g. carbanolate, carbofuran), esters (e.g. butyl acetate, ethyl acetate, propyl formate), halogenated organics (dibromoethane, hexachlorobenzene, methyl chloride, trichloroethylene), isocyanates (e.g. methyl isocyanate), ketones (acetone, acetophenone, MEK, MIBK), acid chlorides, strong bases, strong oxidizing agents, strong reducing agents, flammable liquids, powdered metals and metals (i.e aluminum, tin, zinc, hafnium, raney nickel), metals (alkali and alkaline e.g. cesium, potassium, sodium), metal compounds (toxic e.g. berylium, lead acetate, nickel carbonyl, tetraethyl lead), mitrides (e.g. potassium nitride, sodium nitride), nitriles (e.g. acetonitrile, methyl cyanide), nitro compounds (organic e.g. nitrobenzene, nitromethane), acetic anhydride, hydroquinone, chlorohydrin, chlorosulfonic acid, ethylene cyanohydrin, glyoxal, hydrosulfuric acid, oleum, propiolactone, acylonitrile, phorosous pentoxide, chloroethanol, chloroform-methanol, tetrahydroborate, cyanogen azide, 1,2,4,5 tetrachlorobenzene, cinnamaldehyde. Reacts with formaldehyde hydroxide to yield formic acid, and hydrogen. (Sodium hydroxide)

Chemical stability

Stability:	Stable under recommended storage conditions.
Possibility of Hazardous Reactions:	_Hazardous polymerization does not occur
Conditions to avoid:	Heat. Ignition sources. Incompatible materials.
Incompatible Materials:	Strong oxidizing agents
Hazardous decomposition products:	No information available.
<u>Other Information</u> Corrosivity:	Very caustic to aluminum and other metals in presence of moisture. (Sodium hydroxide)

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Product code: P-361

Acute Toxicity

Component Information

Water
CAS No 7732-18-5
LD50/oral/rat = > 90 mL/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available
CAS No 7647-01-0
LD50/oral/rat = 238 - 277 mg/kg Oral LD50 Rat
700 mg/kg (test substance: 31.5% hydrochloric acid solution)
I D50/oral/mouse = No information available
I D50/dermal/rabbit = 55010 mg/kg Dermal I D50Rabbit/Test substance: 31.5% bydrochloric acid solution - from
European Chemicals Bureau IIICLID datasheet)
I D50/dermal/rat = 5010 mg/kg Dermal I D50
LC50/inhalation/rat = 2124 ppm Inhalation LC50 Pat 1 h
1.69 mg/L Inhalation LC50.1 h
1.00 mg/L milalalion LCOU T m 1562 ppm 4 b/for bydrogon chlorido)
LCEQ/inhelation/mouse = 1109 ppm 1 h (hydrogen ablarida)
$\mathbf{C50/miniation/mouse} = 1100 \text{ ppm} + 11 (hydrogen childre)$
Ciner LDS0 of LCS0Information = 900 mg/kg oral LDS0 Rabbit (no information on test substance)
$\frac{ 1510-752}{ 1500-752 1510-752}$
LD50/oral/mat = 140 - 340 mg/kg Oral LD50 Kat
LD50/orai/mouse = No implimation available
LD50/dermal/rabbit = 1350 mg/kg Dermal LD50Rabbit
LD50/dermai/rat = = 1350 mg/kg Dermai LD50 140 - 340 mg/kg Orai LD50
LC50/innalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = 500 mg/kg Oral LDL (Lowest Lethal Dose) Rabbit
Phenylarsine Oxide
CAS No [637-03-6
LD50/oral/rat = No information available
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available
Product Information
LD50/oral/rat =
Value - Acute Toxicity = No information available
LD50/oral/mouse =
Value - Acute Tox = No information available
LD50/dermal/rabbit

Value - Acute Toxicity = No information available							
LD50/dermal/rat VALUE - Acute Tox = No information available							
LC50/inhalation/rat VALUE-Vapor = No information available VALUE-Gas = No information available VALUE-Dust/Mist = No information available							
LC50/Inhalation/mouse VALUE-Vapor = No information a VALUE - Gas = No information av VALUE - Dust/Mist = No informat	vailable railable ion available						
<u>Symptoms</u>							
Skin Contact:	Causes skin irritation.						
Eye Contact:	Causes serious eye irritation.						
Inhalation	Inhalation of mist or vapor can cause severe irritation and burns of the respiratory tract and mucous membranes, coughing, difficulty breathing. Irritation may lead to chemical pneumonitis, and pulmonary edema.						
ngestionCan cause digestive/gastrointestinal tract irritation, burning sensation in the through dysphagia, abdominal pain, nausea, vomiting, diarrhea. It can result in symptom of intoxiciation and other central nervous system/peripheral nervous system symptoms similar to that of inhalation. It may cause liver and kidney damage (hepatitis, jaundice, increase in liver enzymes, acute tubular necrosis in kidneys kidney failure). It may cause heart dysrhythmias and circulatory collapse.							
Aspiration hazard	No information available.						
Delayed and immediate effects a	s well as chronic effects from short and long-term exposure						
hronic Toxicity This product contains Phenylarsine Oxide, an Arsenic compound. Symptoms of chronic Arsenic poisoning may include weakness, anorexia, hepatomegaly, jaundice irritation of the respiratory tract, central nervous system effects, and gastrointestinal complaints.							
Sensitization:	No information available.						
Mutagenic Effects:	Mutagenic effects in mammalian somatic cells May affect genetic material						

Carcinogenic effects: Not considered carcinogenic.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Hydrochloric Acid	7647-01-0	Group 3 - Not Classifiable - Monograph 54 [1992]	A4 Not Classifiable as a Human Carcinogen	No information	No information	No information	No information
Sodium Hydroxide	1310-73-2	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

637-03-6	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed			
ACGIH (American Conference of Governmental Industrial Hygienists)									
IARC (International Agency for Research on Cancer)									
NTP (National Toxicology Program)									
fety and Heal	th Administra	ation of the US D	epartment of L	_abor)					
	No data is a	available							
	No informa	tion available							
:	No informa No informa	tion available							
<u>Toxicity</u>									
e sure	No informa No informa Central ner system.	tion available. tion available. vous system.	Eyes. Kidne	ys. Liver. Mu	cous membra	ne. Respiratory			
	637-03-6 prence of Gov ncy for Resea ny Program) fety and Heal fety and Heal fety and Heal fety and Heal fety and Heal fety and Heal	637-03-6 Not listed prence of Governmental Ind here for Research on Cancel ty Program) fety and Health Administration No data is a No information No information Toxicity e No information Sure No information Central ner system.	637-03-6 Not listed Not listed prence of Governmental Industrial Hygienis ncy for Research on Cancer) ny Program) fety and Health Administration of the US D No data is available No information available Sure No information available. Central nervous system.	637-03-6 Not listed Not listed Not listed rence of Governmental Industrial Hygienists) ncy for Research on Cancer) ny Program) fety and Health Administration of the US Department of I No data is available No information available Sure No information available. Central nervous system. Eyes. Kidne system.	637-03-6 Not listed Not listed Not listed Not listed Not listed rence of Governmental Industrial Hygienists) ncy for Research on Cancer) ny Program) fety and Health Administration of the US Department of Labor) No data is available No information available. Central nervous system. Eyes. Kidneys. Liver. Mud system.	637-03-6 Not listed No listed Nolisted			

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects:	Aquatic environment.			
Hydrochloric Acid - 7647-01-0 Fish Sodium Hydroxide - 1310-73-2	282 mg/L LC50 Gambusia affinis 96 h static 1			
Fish	45.4 mg/L LC50 Oncorhynchus mykiss 96 h static 1			
Persistence and degradability:	No information available			
Bioaccumulative potential:	No information available.			
Mobility in soil Other adverse effects	No information available No information available.			

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Water	7732-18-5	None	None	None	None
Hydrochloric Acid	7647-01-0	None	None	None	None
Sodium Hydroxide	1310-73-2	None	None	None	None
Phenylarsine Oxide	637-03-6	None	None	None	None

DOT

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class	No information available
Subsidiary Class	No information available
Packing group:	No information available
Emergency Response Guide	No information available
Number	
Marine Pollutant	No data available
DOT RQ (Ibs):	No information available
Special Provisions	No Information available
Symbol(s):	No information available
Description:	No information available

Not Regulated

Not regulated

Not Regulated

Not Regulated

Not Regulated

No information available

No information available No information available

No information available

No information available No information available No information available No information available No Information available No information available

No information available

No information available

No information available

No information available

TDG (Canada)

UN-No:
Proper Shipping Name:
Hazard Class
Subsidiary Risk:
Packing Group:
Marine Pollutant
Description:

ADR

UN Number Proper Shipping Name: Transport hazard class(es) Packing group Subsidiary Risk:

IMDG

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available
Marine Pollutant	No information available

RID

UN Number Proper Shipping Name: Transport hazard class(es) Subsidiary Risk: Packing group

ICAO (air)

UN-No: Proper Shipping Name: Hazard Class Subsidiary Risk: Packing Group:

ΙΑΤΑ

UN Number Proper Shipping Name:

Product code: P-361

Product name: PHENYLARSINE OXIDE, 0.0375 N

Transport hazard class(es)	No information available
Subsidiary Risk:	No information available
Packing group	No information available
Precautionary Statements -	No information available
Response Special Provisions	No information available

15. REGULATORY INFORMATION

International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia (AICS)	EINECS-No.
Water	7732-18-5	PresentACTIV E	Present KE-35400	Present	Not present	Present	Present	Present 231-791-2
Hydrochloric Acid	7647-01-0	PresentACTIV E	Present KE-20189	Present	Present (1)-215	Present	Present	Present 231-595-7
Sodium Hydroxide	1310-73-2	PresentACTIV E	Present KE-31487	Present	Present (2)-1972,(1)-4 10	Present	Present	Present 215-185-5
Phenylarsine Oxide	637-03-6	Present	Present KE-28295	Present	Not present	Present	Present	Present 211-275-3

U.S. Regulations

Hydrochloric Acid Massachusetts RTK: Present Massachusetts EHS: Present New Jersey RTK Hazardous Substance List: 1012 New Jersey (EHS) List: 1012 500 lb TPQ 2909 500 lb TPQ New Jersey - Discharge Prevention - List of Hazardous Substances: Present New Jersey TCPA - EHS: 15000lbTQ 5000lbTQ 5600lbTQ 2000lbTQ Pennsylvania RTK: Environmental hazard Pennsylvania RTK - Environmental Hazard List Present Minnesota - Hazardous Substance List: Present New York Release Reporting - List of Hazardous Substances: 5000 lb RQ 100 lb RQ Louisana Reportable Quantity List for Pollutants: 5000lbfinal RQAs listed in 40 CFR 117.3 Table 117.3 and 40 CFR 302.4 Table 302.4 2270kgfinal RQAs listed in 40 CFR 117.3 Table 117.3 and 40 CFR 302.4 Table 302.4 5000lbRQAs listed in Louisiana Administrative Code, Title 33, Part 1, Subpart 2, Chapter 39, Subchapter E. Applies to unauthorized emissions based on total mass emitted into or onto all media within any consecutive 24-hour period 1000lbRQAs listed in Louisiana Administrative Code, Title 33, Part 1, Subpart 2, Chapter 39, Subchapter E. Applies to unauthorized emissions based on total mass emitted into the atmosphere California Directors List of Hazardous Substances: Present FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 182.1057 FDA - 21 CFR - Total Food Additives 133.129, 155.191, 155.194, 160.105, 160.185, 172.560, 172.892, 182.1057 - List Sourced from EAFUS Sodium Hydroxide Massachusetts RTK: Present New Jersey RTK Hazardous Substance List: 1706 New Jersey - Discharge Prevention - List of Hazardous Substances: Present Pennsylvania RTK: Environmental hazard Pennsylvania RTK - Environmental Hazard List Present Minnesota - Hazardous Substance List: Present New York Release Reporting - List of Hazardous Substances: 1000 lb RQ 100 lb RQ Louisana Reportable Quantity List for Pollutants: 1000lbfinal RQ 454kgfinal RQ California Directors List of Hazardous Substances: Present

Product name: PHENYLARSINE OXIDE, 0.0375 N

FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 184.1763 FDA - Direct Food Additives 21 CFR 173.310 FDA - 21 CFR - Total Food Additives 155.191, 155.194, 163.110, 163.111, 163.112, 172.560, 172.814, 172.892, 173.310, - List Sourced from EAFUS 176.170, 176.180, 176.210, 177.1600, 177.2800, 184.1763, 73.85

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Component	CAS No	Carcinogen	Developmental Toxicity	Male	Female
		_		Reproductive	Reproductive
				Toxicity	Toxicity:
Water	7732-18-5	Not Listed	Not Listed	Not Listed	Not Listed
Hydrochloric Acid	7647-01-0	Not Listed	Not Listed	Not Listed	Not Listed
Sodium Hydroxide	1310-73-2	Not Listed	Not Listed	Not Listed	Not Listed
Phenylarsine Oxide	637-03-6	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Component	CAS No	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Water	7732-18-5	None	None	None	None	None
Hydrochloric Acid	7647-01-0	5000 lb final RQ 2270 kg final RQ	5000 lb EPCRA RQ	None	None	1.0 % de minimis concentration
Sodium Hydroxide	1310-73-2	1000 lb final RQ 454 kg final RQ	None	None	None	None
Phenylarsine Oxide	637-03-6	None	None	None	None	None

U.S. TSCA

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Water	7732-18-5	Not Applicable	Not Applicable
Hydrochloric Acid	7647-01-0	Not Applicable	Not Applicable
Sodium Hydroxide	1310-73-2	Not Applicable	Not Applicable
Phenylarsine Oxide	637-03-6	Not Applicable	Not Applicable

Canada

WHIMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component Water 7732-18-5 (98.92) Hydrochloric Acid 7647-01-0 (0.4) WHMIS 2015 Hazard Classification Not a dangerous product according to HPR classification criteria

Gases under pressure - Liquefied gas: H280 Contains gas under pressure, may explode when heated.; Corrosive to Metals -Category 1: H290 May be corrosive to metals. (potentially corrosive to metals; the supplier should be contacted for more information); Acute toxicity - Inhalation - Category 3: H331 Toxic if inhaled.; Health Hazard Not Otherwise Classified - Category 1: Causes severe damage to the respiratory tract; Skin corrosion/irritation - Category 1: H314 Causes severe skin burns and eye damage.; Serious Eye Damage/Eye Irritation - Category 1: H318 Causes serious eye damage.

Corrosive to Metals - Category 1: H290 May be corrosive to metals. (potentially corrosive to metals; the supplier should be contacted for more information); Health Hazard Not Otherwise Classified - Category 1: Causes severe damage to the respiratory tract; Skin corrosion/irritation - Category 1: H314 Causes severe skin burns and eye damage.; Skin corrosion/irritation - Category 2: H315 Causes skin irritation. (0.4% in aqueous solution); Serious Eye Damage/Eye Irritation - Category 1: H318 Causes serious eye damage.; Serious Eye Damage/Eye Irritation - Category 2: H319 Causes serious eye irritation. (0.4% in aqueous solution); Specific target organ toxicity - Single exposure - Category 3: H335 May cause respiratory irritation. (0.4% in aqueous solution)

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
Water	7732-18-5	Present	Not Listed
Hydrochloric Acid	7647-01-0	Present	Not Listed
Sodium Hydroxide	1310-73-2	Present	Not Listed
Phenylarsine Oxide	637-03-6	Present	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Water	7732-18-5	Not listed
Hydrochloric Acid	7647-01-0	Not listed
Sodium Hydroxide	1310-73-2	Not listed
Phenylarsine Oxide	637-03-6	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Water	7732-18-5	Not listed
Hydrochloric Acid	7647-01-0	Not listed
Sodium Hydroxide	1310-73-2	Not listed
Phenylarsine Oxide	637-03-6	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Component	CAS No	EU GHS - SV - CLP (1272/2008)
Water	7732-18-5	
Hydrochloric Acid	7647-01-0	Gases under pressure: H280 Contains gas under pressure, may explode when heated.; Acute toxicity - Inhalation - Acute Tox. 3: H331 Toxic if inhaled. (Minimum classification); Skin corrosion/irritation - Skin Corr. 1A: H314 Causes severe skin burns and eye damage.017-002-00-2
Sodium Hydroxide	1310-73-2	Skin corrosion/irritation - Skin Corr. 1A: H314 Causes severe skin burns and eye damage. (C >= 5 %)011-002-00-6 Skin corrosion/irritation - Skin Corr. 1A: H314 Causes severe skin burns and eye damage. (C >= 5 %); Skin corrosion/irritation - Skin Corr. 1B: H314 Causes severe skin burns and eye damage. (2 % <= C <5 %); Skin corrosion/irritation - Skin Irrit. 2: H315

		Causes skin irritation. (0.5 % <= C <2
		%); Serious Eye Damage/Eye Irritation
		 Eye Irrit. 2: H319 Causes serious eye
		irritation. (0.5 % <= C <2
		%)011-002-00-6
Phenylarsine Oxide	637-03-6	

EU - CLP (1272/2008)

R-phrase(s)

R36 - Irritating to eyes R38 - Irritating to skin

S -phrase(s)

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible) S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection

Component	CAS No	Classification	Concentration Limits:	Safety Phrases
Water	7732-18-5		No information	
Hydrochloric Acid	7647-01-0	Hydrogen Chloride T; R23 C; R35 Hydrochloric Acid: + hydrochloric acid % C; R34 - Xi; R37 Concentration Limit(s): C >= 25 % C; R34-37 10 % <= C < 25 % Xi; R36/37/38	Hydrogen Chloride: 0.02%<=C<0.2% Xi;R36/37/38 0.2%<=C<0.5% C;R34 0.5%<=C<1% C;R20-34 1%<=C<5% C;R20-35 5%<=C T;C;R23-35	For Hydrogen Chloride: S1/2 S9 S26 S36/37/39 S45 Hydrochloric Acid: S(1/2)-S26-S45
Sodium Hydroxide	1310-73-2	C; R35	5%<=C C; R35 2%<=C<5% C; R34 0.5%<=C<2% Xi; R36/38	
Phenylarsine Oxide	637-03-6		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

Xi - Irritant



16. OTHER INFORMATION

Preparati	on	Date:
Revision	dat	te

11/05/2019 11/05/2019

Prepared by:	Sonia Owen
Disclaimer:	All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet