SZABO SCANDIC

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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Arsenic sponge, 30mm (1.18in) & down

sc-278710

Material Safety Data Sheet

Hazard Alert Code Key:	EXTREME	HIGH	MODERATE	LOW

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
Arsenic sponge, 30mm (1.18in) & down

STATEMENT OF HAZARDOUS NATURE
CONSIDERED A HAZARDOUS SUBSTANCE ACCORDING TO OSHA 29 CFR 1910.1200.

NFPA


SUPPLIER
Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, California 95060
800.457.3801 or 831.457.3800

EMERGENCY
ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255
(1-800-CHEMCALL) or call +613 9573 3112

SYNONYMS
As, arsenicals, "arsenic black", arsenic-75, "colloidal arsenic", "grey arsenic", "metallic arsenic"

Section 2 - HAZARDS IDENTIFICATION

CHEMWATCH HAZARD RATINGS

		Min	Max
Flammability:	0		
Toxicity:	3		
Body Contact:	2		
Reactivity:	2		
Chronic:	4		

Min/Nil=0
Low=1
Moderate=2
High=3
Extreme=4

CANADIAN WHMIS SYMBOLS


EMERGENCY OVERVIEW

RISK
Limited evidence of a carcinogenic effect.
Toxic by inhalation and if swallowed.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED
■ Toxic effects may result from the accidental ingestion of the material; animal experiments indicate that ingestion of less than 40 gram may be fatal or may produce serious damage to the health of the individual.
■ Ingestion may produce nausea, vomiting and diarrhea, bloody stools, shock, rapid pulse and coma.
Severe gastritis or gastroenteritis may occur as a result of lesions produced by vascular damage from absorbed arsenic (and not local corrosion); symptoms may be delayed for several hours.

EYE
■ Although the material is not thought to be an irritant, direct contact with the eye may cause transient discomfort characterized by tearing or conjunctival redness (as with windburn).
Slight abrasive damage may also result.

SKIN
■ Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.
■ There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.
■ Open cuts, abraded or irritated skin should not be exposed to this material.
■ Arsenic can cause skin irritation characterized by eczema, scaling, sensitization, and discoloration and thickening of the palms and soles.
■ Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.
Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

INHALED
■ Inhalation of dusts, generated by the material, during the course of normal handling, may produce toxic effects.
■ There is some evidence to suggest that the material can cause respiratory irritation in some persons.
The body's response to such irritation can cause further lung damage.
■ Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.
■ The inhalation of small particles of metal oxide results in sudden thirst, a sweet, metallic our foul taste, throat irritation, cough, dry mucous membranes, tiredness and general unwellness.
Headache, nausea and vomiting, fever or chills, restlessness, sweating, diarrhea, excessive urination and prostration may also occur.
■ Inhaling materials containing arsenic can cause severe irritation to the nose, throat and lungs.
Prolonged exposure can cause severe structural damage to the nose.

CHRONIC HEALTH EFFECTS
■ There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.
Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.
There is limited evidence that, skin contact with this product is more likely to cause a sensitization reaction in some persons compared to the general population.
There is some evidence that human exposure to the material may result in developmental toxicity. This evidence is based on animal studies where effects have been observed in the absence of marked maternal toxicity, or at around the same dose levels as other toxic effects but which are not secondary non-specific consequences of the other toxic effects.
Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung.
Long-term exposure to arsenic and its inorganic salts may produce loss of appetite, nausea and vomiting, low fever, persistent headache, pallor, weakness and phlegm. Skin effects include redness, eczema, pigmentation, diffuse hair loss, scaling of the palms and soles, sloughing, brittle nails, white lines or bands on the nails, loss of hair and nails, and localized swelling.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
arsenic	7440-38-2	>98

Section 4 - FIRST AID MEASURES

SWALLOWED
· Give a slurry of activated charcoal in water to drink. NEVER GIVE AN UNCONSCIOUS PATIENT WATER TO DRINK. · At least 3 tablespoons in a glass of water should be given.

EYE
■ If this product comes in contact with the eyes: · Immediately hold eyelids apart and flush the eye continuously with running water. · Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. · DO NOT attempt to remove particles attached to or embedded in eye . · Lay victim down, on stretcher if available and pad BOTH eyes, make sure dressing does not press on the injured eye by placing thick pads under dressing, above and below the eye. · Seek urgent medical assistance, or transport to hospital.

SKIN

■ If skin contact occurs: · Immediately remove all contaminated clothing, including footwear · Flush skin and hair with running water (and soap if available).

INHALED

· If fumes or combustion products are inhaled remove from contaminated area. · Lay patient down. Keep warm and rested.

NOTES TO PHYSICIAN

■ * Preplacement and periodic medical examinations are essential for workers exposed to arsenic on a regular basis. Preplacement physical examinations should give particular attention to allergic and chronic skin lesions, eye disease, psoriasis, chronic eczematous dermatitis, hyperpigmentation of the skin, keratosis and warts, baseline weight, baseline blood and haemoglobin counts, baseline urinary arsenic determinations.
Annual physical examinations should give attention to general health, weight, skin condition, and any evidence of excessive exposure or absorption of arsenic.
For acute and short term repeated exposures: Treat as for arsenic poisoning. Prompt administration is essential.

Section 5 - FIRE FIGHTING MEASURES

Vapour Pressure (mmHG):	Not applicable
Upper Explosive Limit (%):	Not available
Specific Gravity (water=1):	5.73
Lower Explosive Limit (%):	Not available

EXTINGUISHING MEDIA

■ Metal dust fires need to be smothered with sand, inert dry powders.
DO NOT USE WATER, CO2 or FOAM.
· DO NOT use halogenated fire extinguishing agents.

FIRE FIGHTING

· Alert Emergency Responders and tell them location and nature of hazard.
· Wear breathing apparatus plus protective gloves.
When any large container (including road and rail tankers) is involved in a fire,
consider evacuation by 800 metres in all directions.

GENERAL FIRE HAZARDS/HAZARDOUS COMBUSTIBLE PRODUCTS

■ With the exception of the metals that burn in contact with air or water (for example, sodium), masses of combustible metals do not represent unusual fire risks because they have the ability to conduct heat away from hot spots so efficiently that the heat of combustion cannot be maintained - this means that it will require a lot of heat to ignite a mass of combustible metal. Generally, metal fire risks exist when sawdust, machine shavings and other metal 'fines' are present.
· Metal powders, while generally regarded as non-combustible, may burn when metal is finely divided and energy input is high.
· May react explosively with water.
· May be ignited by friction, heat, sparks or flame.
· Metal dust fires are slow moving but intense and difficult to extinguish.
· Will burn with intense heat.
· DO NOT disturb burning dust. Explosion may result if dust is stirred into a cloud, by providing oxygen to a large surface of hot metal.
· Containers may explode on heating.
· Dusts or fumes may form explosive mixtures with air.
· May REIGNITE after fire is extinguished.
· Gases generated in fire may be poisonous, corrosive or irritating.
· DO NOT use water or foam as generation of explosive hydrogen may result.
Decomposition may produce toxic fumes of: metal oxides, arsenic compounds.
May emit poisonous fumes.

FIRE INCOMPATIBILITY

· Reacts with acids producing flammable / explosive hydrogen (H2) gas.
None known.

PERSONAL PROTECTION

Glasses:
Chemical goggles.
Gloves:
Respirator:
Particulate

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS
· Clean up waste regularly and abnormal spills immediately.
· Avoid breathing dust and contact with skin and eyes.
· Wear protective clothing, gloves, safety glasses and dust respirator.
· Use dry clean up procedures and avoid generating dust.
· Vacuum up or sweep up. NOTE: Vacuum cleaner must be fitted with an exhaust micro filter (HEPA type) (consider explosion-proof machines designed to be grounded during storage and use).
· Dampen with water to prevent dusting before sweeping.
· Place in suitable containers for disposal.

· Wet residue with water to prevent dusting.
· Vacuum up or sweep up.
MAJOR SPILLS
· Clear area of personnel and move upwind.
· Alert Emergency Responders and tell them location and nature of hazard.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING
· Avoid all personal contact, including inhalation.
· Wear protective clothing when risk of exposure occurs.

RECOMMENDED STORAGE METHODS
■ Glass container.
· Lined metal can, Lined metal pail/drum
· Plastic pail.
For low viscosity materials
· Drums and jerricans must be of the non-removable head type.
· Where a can is to be used as an inner package, the can must have a screwed enclosure.
All inner and sole packagings for substances that have been assigned to Packaging Groups I or II on the basis of inhalation toxicity criteria, must be hermetically sealed.

STORAGE REQUIREMENTS
· Store in original containers.
· Keep containers securely sealed.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³	Peak ppm	Peak mg/m³	TWA F/CC	Notes
US ACGIH Threshold Limit Values (TLV)	arsenic (Arsenic - Elemental)		0.01						TLV Basis: lung cancer
Canada - Nova Scotia Occupational Exposure Limits	arsenic (Arsenic - Elemental)		0.01						TLV Basis: lung cancer
Canada - Prince Edward Island Occupational Exposure Limits	arsenic (Arsenic - Elemental)		0.01						TLV Basis: lung cancer
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	arsenic (Arsenic and compounds (as As))	-	0.5	-	0.5				
Canada - Ontario Occupational Exposure Limits	arsenic (*Arsenic, elemental arsenic and inorganic compounds, and organic compounds (only where both inorganic and organic compounds are present), as As. / Arsenic, arsenic élémentaire et composés inorganiques, et composés organiques		0.01		0.05				

	(seulement lorsque les composés inorganiques et organiques sont tous les deux présents), en As)					
US - California Permissible Exposure Limits for Chemical Contaminants	arsenic (Arsenic and inorganic arsenic compounds; see also Section 5214)		0.01			
US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants	arsenic (Arsenic, inorganic compounds (as As); see 1910.1018.)	Varies with compound				
Canada - British Columbia Occupational Exposure Limits	arsenic (Arsenic and inorganic compounds, as As)		0.01			A1, 1
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	arsenic (Arsenic, and inorganic compounds, (as As))		0.01	0.03		T20
US - Hawaii Air Contaminant Limits	arsenic (Arsenic, inorganic compounds, (as As))		0.01			See º12-202-31
US - Washington Permissible exposure limits of air contaminants	arsenic (Arsenic, inorganic compounds (as As) (when use is covered by chapter 296-848 WAC))		0.01			
US - Washington Permissible exposure limits of air contaminants	arsenic (Arsenic, inorganic compounds (as As) (when use is not covered by chapter 296-848 WAC))		0.2	0.6		
US NIOSH Recommended Exposure Limits (RELs)	arsenic (Arsenic (inorganic compounds, as As))				0.002	See Appendix A; Ca; (Ceiling ([15-minute]))
Canada - Alberta Occupational Exposure Limits	arsenic (Arsenic, elemental & inorganic compounds as As)		0.01			
US - Michigan Exposure Limits for Air Contaminants	arsenic (Arsenic, inorganic compounds (as As); see R 325.51601 et		0.01			

	seq.F)		
US OSHA Permissible Exposure Levels (PELs) - Table Z1	arsenic (Arsenic, inorganic compounds (as As); see 1910.1018)		0.01
US - Oregon Permissible Exposure Limits (Z-1)	arsenic (Arsenic, Organic Compounds (as As))	-	0.5
US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants	arsenic (Arsenic, organic compounds (as As))		0.5
US - California Permissible Exposure Limits for Chemical Contaminants	arsenic (Arsenic, organic compounds, as As)		0.2
Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)	arsenic (Arsenic, elemental, and inorganic compounds (except Arsine), (as As))		0.1

ENDOELTABLE

PERSONAL PROTECTION




RESPIRATOR

• particulate.

Consult your EHS staff for recommendations

EYE

· Safety glasses with side shields.

· Chemical goggles.

HANDS/FEET

■ Wear chemical protective gloves, eg. PVC.

NOTE: The material may produce skin sensitization in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as:

· frequency and duration of contact,

· chemical resistance of glove material,

· glove thickness and

· dexterity

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739).

· When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended.

· When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.

· Contaminated gloves should be replaced.

Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

· Protective gloves eg. Leather gloves or gloves with Leather facing.

· Neoprene gloves.

OTHER

· Overalls.

· Eyewash unit.

ENGINEERING CONTROLS

■ Metal dusts must be collected at the source of generation as they are potentially explosive.
· Vacuum cleaners, of flame-proof design, should be used to minimize dust accumulation.
· Metal spraying and blasting should, where possible, be conducted in separate rooms. This minimizes the risk of supplying oxygen, in the form of metal oxides, to potentially reactive finely divided metals such as aluminum, zinc, magnesium or titanium.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES

Solid.
Does not mix with water.
Sinks in water.

State	Divided solid	Molecular Weight	74.92
Melting Range (°F)	1503@ 2800 kPa	Viscosity	Not Applicable
Boiling Range (°F)	1135(sublimes)	Solubility in water (g/L)	Immiscible
Flash Point (°F)	Not Applicable	pH (1% solution)	Not applicable
Decomposition Temp (°F)	Not Applicable	pH (as supplied)	Not applicable
Autoignition Temp (°F)	Not applicable	Vapour Pressure (mmHG)	Not applicable
Upper Explosive Limit (%)	Not available	Specific Gravity (water=1)	5.73
Lower Explosive Limit (%)	Not available	Relative Vapor Density (air=1)	Not applicable
Volatile Component (%vol)	Not applicable	Evaporation Rate	Not applicable

APPEARANCE

Grey, shiny, brittle, metallic-looking rhombohedral crystals. Can be heated to burn in air with a bluish flame, giving off an odour of garlic and dense white fumes of arsenic trioxide. Loses its lustre on exposure to air. Insoluble in water. Converted by nitric acid or hot sulfuric acid into arsenous or arsenic acid. Brinell hardness: 147 Mohs' scale: 3.5 Arsenic is a notoriously poisonous metalloid that has many allotropic forms: yellow (molecular non-metallic) and several black and grey forms (metalloids) are a few that are seen. Three metalloidal forms of arsenic with different crystal structures are found free in nature (the minerals arsenic sensu stricto and the much rarer arsenolamprite and pararsenolamprite), but it is more commonly found as arsenide and arsenate compounds. Several hundred such mineral species are known

Section 10 - CHEMICAL STABILITY

CONDITIONS CONTRIBUTING TO INSTABILITY

· Presence of heat source and ignition source.
· Presence of incompatible materials.
· Product is considered stable.

STORAGE INCOMPATIBILITY

· Contact with acids produces toxic fumes.
· Metals and their oxides or salts may react violently with chlorine trifluoride and bromine trifluoride.
· These trifluorides are hypergolic oxidisers. They ignites on contact (without external source of heat or ignition) with recognised fuels - contact with these materials, following an ambient or slightly elevated temperature, is often violent and may produce ignition.
· The state of subdivision may affect the results.
· Many metals may incandesce, react violently, ignite or react explosively upon addition of concentrated nitric acid.
· Some metals can react exothermically with oxidizing acids to form noxious gases.
· Very reactive metals have been known to react with halogenated hydrocarbons, sometimes forming explosive compounds (for example, copper dissolves when heated in carbon tetrachloride).
· Many metals in elemental form react exothermically with compounds having active hydrogen atoms (such as acids and water) to form flammable hydrogen gas and caustic products.
· Elemental metals may react with azo/diazo compounds to form explosive products.
· Some elemental metals form explosive products with halogenated hydrocarbons.
· Reacts with acids producing flammable / explosive hydrogen (H2) gas.
· Avoid strong acids, bases.
· Finely divided metal powders develop pyrophoricity when a critical specific surface area is exceeded; this is ascribed to high heat of oxide formation on exposure to air.
· Safe handling is possible in relatively low concentrations of oxygen in an inert gas
· Several pyrophoric metals, stored in glass bottles have ignited when the container is broken on impact. Storage of these materials moist and in metal containers is recommended.
· The reaction residues from various metal syntheses (involving vacuum evaporation and co-deposition with a ligand) are often pyrophoric.
Segregate from halogens.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

arsenic

TOXICITY AND IRRITATION

ARSENIC:

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

■ Arsenic compounds are classified by the European Union as toxic by inhalation and ingestion and toxic to aquatic life and long lasting in the environment. IARC classify arsenic indrinikng water as a confirmed human carcinogen (IARC 1).

WARNING: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS.

Tumorigenic - Carcinogenic by RTECS criteria.

CARCINOGEN

ARSENIC	US Environmental Defense Scorecard Recognized Carcinogens	Reference(s)	P65-MC
INORGANIC ARSENIC COMPOUNDS	US Environmental Defense Scorecard Recognized Carcinogens	Reference(s)	P65
ARSENIC	US Environmental Defense Scorecard Suspected Carcinogens	Reference(s)	P65-MC
INORGANIC ARSENIC COMPOUNDS	US Environmental Defense Scorecard Suspected Carcinogens	Reference(s)	P65
ARSENIC COMPOUNDS	US Environmental Defense Scorecard Suspected Carcinogens	Reference(s)	HAZMAP, IARC
VPVB_(VERY~	US - Maine Chemicals of High Concern List	Carcinogen	CA Prop 65; IARC; IRIS; NTP 11th ROC

REPROTOXIN

arsenic	ILO Chemicals in the electronics industry that have toxic effects on reproduction	Reduced fertility or sterility	H s

Section 12 - ECOLOGICAL INFORMATION

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
This material and its container must be disposed of as hazardous waste.
Avoid release to the environment.
Refer to special instructions/ safety data sheets.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
arsenic	No Data Available	No Data Available	LOW	

Section 13 - DISPOSAL CONSIDERATIONS

US EPA Waste Number & Descriptions

A. General Product Information
Toxicity characteristic: use EPA hazardous waste number D004 (waste code E) if this substance, in a solid waste, produces an extract containing greater than 5 mg/L of arsenic.

Disposal Instructions

All waste must be handled in accordance with local, state and federal regulations.
¦ Puncture containers to prevent re-use and bury at an authorized landfill.
Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.
A Hierarchy of Controls seems to be common - the user should investigate:
· Reduction
· Reuse
· Recycling
· Disposal (if all else fails)
This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.
DO NOT allow wash water from cleaning equipment to enter drains. Collect all wash water for treatment before disposal.
· Recycle wherever possible or consult manufacturer for recycling options.
· Consult Waste Management Authority for disposal.

Section 14 - TRANSPORTATION INFORMATION

DOT:
Symbols: None Hazard class or Division: 6.1
Identification Numbers: UN1558 PG: II
Label Codes: 6.1 Special provisions: IB8, IP2,
IP4, T3,
TP33
Packaging: Exceptions: 153 Packaging: Non- bulk: 212
Packaging: Exceptions: 153 Quantity limitations: 25 kg
Passenger aircraft/rail:
Quantity Limitations: Cargo 100 kg Vessel stowage: Location: A
aircraft only:
Vessel stowage: Other: None
Hazardous materials descriptions and proper shipping names:
Arsenic

Air Transport IATA:

ICAO/IATA Class: 6.1 ICAO/IATA Subrisk: None
UN/ID Number: 1558 Packing Group: II
Special provisions: None
Cargo Only
Packing Instructions: 100 kg Maximum Qty/Pack: 676
Passenger and Cargo Passenger and Cargo
Packing Instructions: 25 kg Maximum Qty/Pack: 669
Passenger and Cargo Limited Quantity Passenger and Cargo Limited Quantity
Packing Instructions: 1 kg Maximum Qty/Pack: Y644
Shipping Name: ARSENIC

Maritime Transport IMDG:

IMDG Class: 6.1 IMDG Subrisk: None
UN Number: 1558 Packing Group: II
EMS Number: F-A , S-A Special provisions: None
Limited Quantities: 500 g Marine Pollutant: Yes
Shipping Name: ARSENIC 1558

Section 15 - REGULATORY INFORMATION

arsenic (CAS: 7440-38-2) is found on the following regulatory lists;
"Canada - Alberta Ambient Air Quality Objectives","Canada - Nova Scotia Occupational Exposure Limits","Canada - Prince Edward Island Occupational Exposure Limits","Canada - Prince Edward Island Occupational Exposure Limits - Carcinogens","Canada - Saskatchewan Environmental Persistent or Chronic Hazardous Substances","Canada Domestic Substances List (DSL)","Canada Environmental Quality Guidelines (EQGs) Water: Aquatic life","Canada Environmental Quality Guidelines (EQGs) Water: Community","Canada Ingredient Disclosure List (SOR/88-64)","Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS (English)","US - California Air Toxics ""Hot Spots"" List (Assembly Bill 2588) Substances for which emissions must be quantified","US - California Code of Regulation; Identification and Listing of Hazardous Waste, Table 1 - Maximum Concentrations for the Toxicity Characteristics","US - Massachusetts Oil & Hazardous Material List","US - New Jersey Right to Know Hazardous Substances","US - Pennsylvania - Hazardous Substance List","US - Vermont Hazardous Constituents","US - Vermont Hazardous Waste - Maximum Contaminant Concentration for Toxicity","US ACGIH Threshold Limit Values (TLV)","US ACGIH Threshold Limit Values (TLV) - Carcinogens","US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)","US CERCLA Priority List of Hazardous Substances","US CERCLA Top 20 Priority List of Hazardous Substances","US Department of Transportation (DOT) List of Hazardous Substances and Reportable Quantities - Hazardous Substances Other Than Radionuclides","US EPA National Priorities List - Superfund Chemical Data Matrix (SCDM) - Hazard Ranking System - Hazardous Substance Benchmarks","US EPCRA Section 313 Chemical List","US List of Lists - Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112(r) of the Clean Air Act","US RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261","US RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards","US -Texas Air Monitoring Comparison Values for Evaluating Metals","US Toxic Substances Control Act (TSCA) - Inventory","WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of health significance in drinking-water"

Section 16 - OTHER INFORMATION

Reasonable care has been taken in the preparation of this information, but the author makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The author makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. For additional technical information please call our toxicology department on +800 CHEMCALL.

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent

review by the Chemwatch Classification committee using available literature references.
A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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