

# PSB-9

## SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

#### Product identifier

Chemical Family / Chemical Name	Mixture
CAS No.	Mixture
Trade Name	PSB-9
Product Code	None

#### Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s)	Precipitant
Uses Advised Against	None
Company Identification	ECOLOGIX ENVIRONMENTAL SYSTEMS, LLC 11800 Wills Rd, Ste 110 Alpharetta, GA 30009 USA

Telephone	(678) 514-2100
Fax	(678) 514-2106
E-mail	<a href="mailto:info@Ecologixsystems.com">info@Ecologixsystems.com</a>

#### Emergency telephone number

Emergency Phone No.	<b>Transportation Emergency: 888-326-2020</b>
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### SECTION 2: HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200)	Skin Corr. 1B; Eye Dam. 1; Met. Corr. 1
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#### Label elements

Hazard Symbol



**DANGER**

Signal Word(s)

Hazard Statement(s)

Causes severe skin burns and eye damage.  
May be corrosive to metals.

Precautionary Statement(s)

Wear protective gloves/protective clothing/eye protection/face protection.  
Wash thoroughly after handling.  
IF ON SKIN: Wash with plenty of soap and water. If irritation (redness, rash, blistering) develops, get medical attention.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.  
IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Seek medical treatment.

#### Other hazards

Contact with acids liberates very toxic gas. Toxic to aquatic life.

#### Additional Information

Warning - this preparation contains a substance not yet tested completely. (>10%)

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	% wt.	CAS No.
Ferrous Sulfate	Trade Secret	7720-78-7
Hydropolysulfide, carbonothioylbis-, disodium salt	Trade Secret	128578-22-3
Potassium Hydroxide	Trade Secret	1310-58-3

Additional Information - Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below.:

- Contact with acids liberates very toxic gas.: Hydrogen sulfide (H<sub>2</sub>S)

## SECTION 4: FIRST AID MEASURES



### Description of first aid measures

Inhalation	Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is laboured, administer oxygen. If symptoms occur obtain medical attention.
Skin Contact	Wash affected skin with plenty of water. If irritation (redness, rash, blistering) develops, get medical attention.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.
Ingestion	If ingested, rinse mouth. Do not induce vomiting. Seek medical treatment.

**Most important symptoms and effects, both acute and delayed** None anticipated

**Indication of any immediate medical attention and special treatment needed** Treat symptomatically

## SECTION 5: FIRE-FIGHTING MEASURES

### Extinguishing Media

- |                                 |  |
|---------------------------------|--|
| -Suitable Extinguishing Media   | Non-combustible / Non-flammable. Use dry chemical, foam or carbon dioxide. |
| -Unsuitable Extinguishing Media | As appropriate for surrounding fire.                                       |

### Special hazards arising from the substance or mixture

May ignite when in contact with combustible materials. Do not depend on ambient air for air supply during fires. Fire may result in release of toxic gases such as oxides of carbon, nitrogen and sulphur.

### Advice for fire-fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Keep containers cool by spraying with water if exposed to fire.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures</b>	Put on protective equipment before entering danger area. Wear protective gloves/protective clothing/eye protection/face protection.
<b>Environmental precautions</b>	Prevent substance entering sewers.
<b>Methods and material for containment and cleaning up</b>	Cover spills with inert absorbent material. Transfer to a container for disposal or recovery.
<b>Reference to other sections</b>	None
<b>Additional Information</b>	None

## SECTION 7: HANDLING AND STORAGE




<b>Precautions for safe handling</b>	Wear protective gloves/protective clothing/eye protection/face protection. When using do not eat, drink or smoke.
<b>Conditions for safe storage, including any incompatibilities</b>	
-Storage temperature	Protect drum from damage, freezing and intense heat.
-Incompatible materials	Contact with acids liberates very toxic gas.
<b>Specific end use(s)</b>	Precipitant

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Occupational Exposure Limits

SUBSTANCE.	CAS No.	(8hr TWA)		STEL		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
Potassium Hydroxide	1310-58-3	2 mg/m3	2 mg/m3	2 mg/m3	2 mg/m3	

^ once, only if no other meas. exp. occurs

<b>Recommended monitoring method</b>	Real-time (electrochemical sensors)
<b>Exposure controls</b>	
<b>Appropriate engineering controls</b>	Ensure that the eye flushing systems and safety showers are located close to the working place.
<b>Personal protection equipment</b>	
Eye/face protection 	The following to be used as necessary: Goggles giving complete protection to eyes. Full face shield.
Skin protection (Hand protection/ Other) 	The following to be used as necessary: Gloves (Neoprene or Natural rubber). Chemical protection suit. Wear safety or chemical resistant shoes or boots. Check with protective equipment manufacturer's data.
Respiratory protection 	Normally no personal respiratory protection is necessary.

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Thermal hazards

Not normally required. Use gloves with insulation for thermal protection, when needed.

**Environmental Exposure Controls**

Collect all precipitate. Disposal should be in accordance with local, state or national legislation.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Appearance	Liquid
Color	Dark Brown to black
Odor	Slight Odor
Odor Threshold (ppm)	Not available
pH (Value)	13.00 – 13.75
Melting Point (°C) / Freezing Point (°C)	ca. 0 (32 °F)
Boiling point/boiling range (°C):	ca.100 (212 °F)
Flash Point (°C)	Non-combustible / Non-flammable
Evaporation Rate	Similar to Water
Flammability (solid, gas)	Not applicable
Explosive Limit Ranges	Not applicable
Vapour pressure (Pascal)	Similar to Water
Vapour Density (Air=1)	Similar to Water
Density (g/ml)	1.160 – 1.200
Solubility (Water)	Miscible
Solubility (Other)	Not available
Partition Coefficient (n-Octanol/water)	Not available
Auto Ignition Point (°C)	Non-combustible / Non-flammable
Decomposition Temperature (°C)	Not available
Kinematic Viscosity	Similar to Water
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
<b>Other information</b>	Not available

## SECTION 10: STABILITY AND REACTIVITY

<b>Reactivity</b>	Stable under normal conditions.
<b>Chemical stability</b>	Stable.
<b>Possibility of hazardous reactions</b>	Contact with acids liberates very toxic gas.
<b>Conditions to avoid</b>	Incompatible materials
<b>Incompatible materials</b>	Lithium, steel, acids
<b>Hazardous decomposition product(s)</b>	Hydrogen sulfide gas

## SECTION 11: TOXICOLOGICAL INFORMATION

**Exposure routes:** Skin Contact, Eye Contact

**Substances in preparations / mixtures**

PSB-9 (proprietary hydropolysulfide, carbonothioylbis-, disodium salt Solution, Potassium Hydroxide):

<b>Acute toxicity</b>	Oral: LD50 - Not determined Dermal: LD50 - Not determined
<b>Irritation/Corrosivity</b>	Causes severe skin burns and eye damage.
<b>Sensitization</b>	No information available
<b>Repeated dose toxicity</b>	No information available
<b>Carcinogenicity</b>	No data. It is unlikely to present a carcinogenic hazard to man.

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NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Mutagenicity  
Toxicity for reproduction

No information available  
No information available

## SECTION 12: ECOLOGICAL INFORMATION

### Toxicity

PSB-9 (proprietary hydropolysulfide, carbonothioylbis-, disodium salt Solution, Potassium Hydroxide):

<b>Short term</b>	LC50 (48 hour) = 56 mg/L ( <i>Ceriodaphnia dubia</i> ; water flea) LC50 (48 hour) = 55.4 mg/L ( <i>Daphnia mangna</i> ; water flea) LC50 (96 hour) = 15.8 mg/L ( <i>Pimephales promelas</i> ; fathead minnow)
<b>Long Term</b>	Not available
<b>Persistence and degradability</b>	Not available
<b>Bioaccumulative potential</b>	The product has low potential for bioaccumulation.
<b>Mobility in soil</b>	Not available
<b>Results of PBT and vPvB assessment</b>	Not classified as PBT or vPvB.
<b>Other adverse effects</b>	None known.

## SECTION 13: DISPOSAL CONSIDERATIONS

<b>Waste treatment methods</b>	Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.
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## SECTION 14: TRANSPORT INFORMATION

	Land transport (U.S. DOT)	Sea transport (IMDG)	Air transport (ICAO/IATA)
<b>UN number</b>	UN 3266	UN 3266	UN 3266
<b>Proper Shipping Name</b>	Corrosive liquid, basic, inorganic, n.o.s (Potassium Hydroxide)		
<b>Transport hazard class(es)</b>	8	8	8
<b>Packing group</b>	III	III	III
<b>Hazard label(s)</b>	Corrosive	Corrosive	Corrosive
<b>Environmental hazards</b>	No	No	No
<b>Special precautions for user</b>	None assigned	None assigned	None assigned

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not established.

## SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

TSCA (Toxic Substance Control Act) - Inventory Status: All components listed or polymer exempt.

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
None	----	----	----

SARA 311/312 - Hazard Categories:

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Fire     Sudden Release     Reactivity     Immediate (acute)     Chronic (delayed)

**SARA 313 - Toxic Chemicals (40 CFR 372):**

Chemical Name	CAS No.	Typical %wt.
None	----	----

**SARA 302 - Extremely Hazardous Substances(40 CFR 355):**

Chemical Name	CAS No.	Typical %wt.	TPQ (pounds)
None	----	----	----

**California Proposition 65 List:**

Chemical Name	CAS No.	Type of Toxicity
None	----	----

## SECTION 16: OTHER INFORMATION

**HMIS RATINGS:** Health=2, Flammability=0, Reactivity=0  
HMIS HAZARD INDEX: 0=MINIMAL, 1=SLIGHT, 2=MODERATE, 3=SERIOUS, 4=SEVERE

**The following sections contain revisions or new statements:** 1-16 (new); Section 8 (CAS number) 5/11/18.

**Date of preparation:** April 22, 2015

**Additional Information:** None

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