

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Ammonia scrubbing media - AS-200-8-EB Part B and AS-200-8-E Part B

Perma Pure Inc.
8 Executive Drive
Toms River, NJ 08755 USA
Telephone: 1 732 244-0010
Fax: 1 732 244-8140

Emergency Assistance

Perma Pure Inc.
24 hour pager
9AM - 5PM EST

1-800-491-9178
1-732-244-0010

2. COMPOSITION

<u>Ingredient</u>	<u>CAS No.</u>	<u>Wt%</u>	<u>ACGIH TLV-TWA</u>	<u>OSHA PEL-TWA</u>
Silicon orthophosphate combined with	12037-47-7		N/E	N/E
Silcon Pyrophosphate	13827-38-8	<99	N/E	N/E
Quartz dust, Respirable	14808-60-7	<1	0.1 mg/m ³ Respirable dust	10 mg/m ³ Total 3.3 mg/m ³ dust
Phosphoric acid	7664-38-2	*	1 mg/m ³	1 mg/m ³

*As made, there is no Phosphoric acid present. If material comes into contact with water, up to 65 wt% Phosphoric acid can be generated.

N/E	-	None established.
CAS	-	Chemical Abstracts Service
ACGIH	-	American Conference of Governmental Industrial Hygienists
TLV	-	Threshold Limit Value
OSHA	-	Occupational Safety and Health Administration - USA
TWA	-	Time Weighted Average
PEL	-	Permissible Exposure Limit
STEL	-	Short-Term Exposure Limit

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

These white pellets are corrosive when wet. The product and the product dust may be corrosive to the eye and skin. Inhalation of dust may cause respiratory irritation or burning of moist membranes.

POTENTIAL HEALTH EFFECTS:

Primary Routes of Exposure:	Contact with skin and eyes. Product ingestion is unlikely to occur if proper safety/hygiene procedures are followed.
Skin Contact:	If the product becomes wet it can release acid which may be very irritating or corrosive to the skin and/or mucous membranes.
Eye Contact:	Product is corrosive to the eye.

Ingestion: Burns to moist body tissues can result if contact is prolonged. No other evidence of adverse effects from available information.

Inhalation: Dust may irritate or burn the respiratory system.

Target Organ: When wet, the product is corrosive to any tissue; this includes the skin, eyes, and mucous membranes. Prolonged or repeated exposure may cause lung injury/ cancer.

Carcinogenicity Classification:

International Agency for Research on Cancer (IARC)

Crystalline silica inhaled in the form of quartz from occupational sources is carcinogenic to humans. (IARC Group 1).

U.S. National Toxicology Program (NTP):

Quartz - Anticipated Human Carcinogen.

U.S. Occupational Safety and Health Administration (OSHA)

Neither the product nor the component(s) are classified or regulated.

4. FIRST AID MEASURES

Skin Contact: Wash affected area with soap and water. If irritation develops, obtain medical attention.

Eye Contact: Flush with water for at least 15 minutes. Obtain medical attention.

Ingestion: Do not induce vomiting. Obtain immediate medical attention.

Inhalation: Remove affected person to fresh air. Obtain medical attention.

Notes to Physician: When the catalyst or catalyst dust contact water, corrosive phosphoric acid will form.

5. FIRE FIGHTING MEASURES

Flash Point: Not combustible

Extinguishing Media: Unused material will not burn. Use media appropriate for surrounding fire.

Fire and Explosion Hazards: None known.

6. ACCIDENTAL RELEASE MEASURES

Large Spill: Confine entry into the affected area to those persons properly protected. Keep material dry; water may release phosphoric acid. The acidic runoff can be neutralized with lime. Foaming and carbon dioxide evolution may occur depending on the form of lime used.

Small Spill: Wear protective equipment. Sweep or vacuum spilled product into appropriate container (do not use a vacuum if material has contacted a hydrocarbon). See section 13 of MSDS, Disposal Information.

7. HANDLING AND STORAGE

Store tightly closed, properly labeled containers. Avoid repeated or prolonged contact with skin. Avoid contact with eyes and inhalation of dust.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Respiratory Protection: Where natural ventilation is inadequate, use mechanical ventilation, other engineering controls, or a toxic dust respirator (in USA - NIOSH/MSHA approved) to prevent inhalation of product dust.

Skin Protection: Gloves and work uniform as necessary to prevent repeated or prolonged skin contact.

Eye Protection: Safety glasses or goggles as necessary to prevent eye contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

These data do not represent technical or sales specifications.

Appearance:	White Pellets	Specific Gravity:	Not applicable
Odor:	None	Apparent Bulk Density:	59± 2 lbs/ft ³
(0.95±0.03 g/cc)			
pH:	10% aqueous slurry 1.6 to 2.0	Solubility in Water:	Appreciable
% Volatile:	Not applicable	Boiling Point:	Not applicable
Pour Point:	Not applicable	Freezing Point:	Not applicable
Viscosity:	Not applicable	Melting Point:	Not applicable
Vapor Density:	Not applicable	Vapor Pressure:	Not applicable

10. STABILITY

Stability: Stable

Conditions to Avoid: Moisture or water contact, temperature in excess of 750°F (400°C).

Hazardous Decomposition Products: Phosphoric acid upon contact with water or moisture, PO_x at temperatures above 750°F (400°C).

Hazardous Polymerization: Will not occur

Incompatible Materials: Water

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity:	LD	> 5 g/kg (rat)
Acute Dermal Toxicity:	LD ₅₀	> 2 g/kg (rat)
Acute Inhalation Toxicity:	LC ₅₀	> 8.51 mg/l (rat)
Irritation:	EYE:	Draize eye score 47.5/110 max (rabbit). Severe eye irritant.
	SKIN:	Primary dermal irritation score of 2.9/4 max (rabbit); moderate skin irritant.

Additional Toxicological Information: No further data.

12. ECOLOGICAL INFORMATION

No data is available.

13. DISPOSAL INFORMATION

Catalyst waste must be handled in accordance with all applicable government regulations. It is up to the user of this product to determine the hazards associated with any waste material generated. As a waste material, this product may exhibit the U.S. EPA's Resource Conservation and Recovery Act (RCRA) hazardous waste characteristic of corrosivity (D002) in the presence of water if a representative sample exhibits a pH of 2 or less.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation Shipping Name:
Not regulated

15. REGULATORY INFORMATION

United States

Toxic Substances Control Act (TSCA):

All the ingredients of this mixture are registered in the TSCA Chemical Substance Inventory.

Superfund Amendments and Reauthorization act Title III, Section 313:

The following component(s) of this product are subject to release reporting under 40 CFR 302 when a release exceeds the Reportable Quantity (RQ) and/or the component(s) are subject to the emergency planning provisions of 40 CFR 355 when there are amounts present which are equal to or greater than their Threshold Planning Quantity (TPQ):

Phosphoric acid - present only if product has contacted water.

Superfund Amendments and Reauthorization Act Title III:

The following component(s) of this product are subject to emergency planning based on Threshold Planning Quantities (TPQ's) and release reporting based on Reportable Quantities (RQ's) in 40 CFR 355 (used for SARA 302, 304, 311 and 312):

Phosphoric acid - 5000 lbs (present only if product has contacted water)

State Community Right-to-Know Legislation:

The following component(s) of this product are regulated under California's Proposition 65:
This product contains quartz, known to the State of California to cause cancer.

European Union (EU)

European Inventory of Existing Commercial Chemical Substances:

All components of this preparation are included in EINECS/ELINCS.

Silicon orthophosphate combined with 2348584

Silicon pyrophosphate 2375382

Quartz 2388784

Phosphoric acid 2316332

Council of European Communities Directive on Classification, Packaging and Labeling of Dangerous Substances/Preparation (67/548/EEC & 88/379/EEC):

- R37 Irritating to respiratory system.
- R41 Risk of serious damage to eyes
- S22 Do not breathe dust.
- S30 Never add water to this product.
- S36/39 Wear suitable protective clothing, and eye/face protection.
- Xi: Irritant

Canadian Hazardous Products Act

This product is classified as a material causing other toxic effects, carcinogenicity - Class D, Division 2, Subdivision A, under regulations pursuant to the Federal Hazardous Products Act (e.g. WHMIS)

16. OTHER INFORMATION

Summary of Changes: Section 1
I.D./Form: 2393
Supersedes: May 1997

HMIS™ - Hazardous Materials Identification System

HMIS™ Ratings	
HEALTH	2
FLAMMABILITY	0
REACTIVITY	0

0-minimal hazard, 1-slight hazard, 2-moderate hazard, 3-serious hazard, 4-severe hazard.

For additional information concerning this product, contact the following:

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Toms River, NJ 08755 USA

Telephone: 1 732 244-0010
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Internet: www.permapure.com
E-mail: info@permasure.com

PRODUCT EMERGENCIES

If you have a product-related emergency, resulting in an incident such as a spill or release of product or human exposure and need assistance from Perma Pure, please call the following number:

Perma Pure Inc 24-Hour Emergency Telephone Number: +1-800-491-9178

This data and recommendations presented in this data sheet concerning the use of our product and the materials contained therein are believed to be accurate and are based on information which is considered reliable as of the date hereof. However, the customer should determine the suitability of such materials for this purpose before adopting them on a commercial scale. Since the use of our products by others is beyond our control, no guarantee, expressed or implied, is made and no responsibility assumed for the use of this material or the results to be obtained therefrom. Information on this form is furnished for the purpose of compliance with Government Health and Safety Regulations and shall not be used for any other purposes. Moreover, the recommendation to infringe, any existing patents, nor should they be confused with state, municipal or insurance requirements, or with national safety codes.