

Material Safety Data Sheet

Pure Protein L.L.C.

Version: 6

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1. Product Identification

Product Name: Soluble Human Leukocyte Antigen Class I (sHLA1)

Molecular Weight: ~47kD

Substance Name: Recombinant Soluble Human Leukocyte Antigen Class I (sHLA1)

Synonym: Major Histocompatibility Complex (MHC) Protein

2. Composition

Description: Various concentrations of sHLA Protein in Phosphate Buffered Saline Buffer composed of **Potassium Phosphate, Sodium Phosphate, Potassium Chloride,** and **Sodium Chloride** containing 0.02% **Sodium Azide**

3. Hazards Identification

Precautionary Statements: Don all appropriate PPE before handling, including protective gloves, clothing, and eye protection. Please read and understand this MSDS before handling. If you have any questions, please contact us at the number or email listed at the top of this sheet. In the event of an emergency, contact your local emergency number, in the United States, dial 911.

4. Information on Ingredients

Sodium Azide (N₃Na)

CAS# 26628-22-8

EMERGENCY OVERVIEW

Very toxic if swallowed. Contact with acids to liberate very toxic gas. Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment. Water-Reactive.

POTENTIAL HEALTH EFFECTS

Eye: Causes eye irritation.

Skin: Causes skin irritation. May be fatal if absorbed through the skin. Substance is rapidly absorbed through the skin.

Ingestion: May be fatal if swallowed. Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation: May be fatal if inhaled. Dust is irritating to the respiratory tract. May cause effects similar to those described for ingestion. Rapidly absorbed.

Chronic: Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion.

FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes. **SPEEDY ACTION IS CRITICAL!**

Ingestion: Do **NOT** induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do **NOT** use mouth-to-mouth resuscitation.

Potassium Phosphate Monobasic (KH₂PO₄)

CAS# 7778-77-0

EMERGENCY OVERVIEW

Hygroscopic. The toxicological properties of this material have not been fully investigated.

POTENTIAL HEALTH EFFECTS

Eye: Dust may cause mechanical irritation.

Skin: May cause skin irritation. Low hazard for usual industrial handling.

Ingestion: May cause irritation of the digestive tract. Low hazard for usual industrial handling. The toxicological properties of this substance have not been fully investigated.

Inhalation: May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

Chronic: Ingestion of large doses may cause nausea, vomiting, and diarrhea. Chronic exposure to this product may cause calcium phosphate deposition in the kidneys.

FIRST AID MEASURES

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.

Skin: Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Potassium Phosphate Dibasic (Na₂PO₄)

CAS# 7558-79-4

EMERGENCY OVERVIEW

Not available.

POTENTIAL HEALTH EFFECTS

Eye: Causes mild eye irritation. May cause conjunctivitis.

Skin: Causes mild skin irritation.

Ingestion: Ingestion of large amounts may cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation: May cause respiratory tract irritation. Can produce delayed pulmonary edema.

Chronic: Effects may be delayed.

FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Potassium Chloride (KCl)

CAS# 7447-40-7

EMERGENCY OVERVIEW

Irritating to eyes. Hygroscopic.

POTENTIAL HEALTH EFFECTS

Eye: Causes eye irritation. May cause conjunctivitis.

Skin: May cause skin irritation.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause gastric disturbances and electrolytic imbalance.

Inhalation: May cause respiratory tract irritation. Can produce delayed pulmonary edema.

Chronic: Effects may be delayed. Laboratory experiments have resulted in mutagenic effects.

FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Sodium Chloride (NaCl)

CAS# 7647-14-5

EMERGENCY OVERVIEW

Not available.

POTENTIAL HEALTH EFFECTS

Eye: May cause eye irritation.

Skin: May cause skin irritation.

Ingestion: Ingestion of large amounts may cause gastrointestinal irritation.

Inhalation: May cause respiratory tract irritation.

Chronic: No information found.

FIRST AID MEASURES

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid. Wash mouth out with water.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Recombinant Single Specificity Soluble Human Leukocyte Antigen (sHLA)

EMERGENCY OVERVIEW

Not available.

POTENTIAL HEALTH EFFECTS

Chronic: A potential development of anti-HLA antibodies cannot be excluded if accidentally injected.

FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.

Skin: Flush skin with soap and water.

Ingestion: Drink a glass of orange or lemon juice.

5. Firefighting Measures

Flammable properties: Not flammable

Flash point: Undetermined

Suitable Extinguishing media: Use extinguishing measures that are appropriate to local environment and applicable to the present environment.

Explosion data: None

PPE and other precautions for firefighters: Wear self-contained breathing apparatus (SCBA) and full protective gear to prevent contact with skin and eyes. Thoroughly ventilate area after extinguishment. Trace ingredients may react with water.

6. Storage and Handling

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice.

Technical measures/Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Stable under recommended storage conditions.

7. Disposal Considerations

Waste disposal methods

Dispose of in accordance with federal, state, and local regulations.

Contaminated packaging

Do not re-use empty containers.

US EPA Waste Number P105

8. Transportation Information

ADR	Not dangerous goods
IATA	Not dangerous goods
DOT	Not dangerous goods

9. Other Information

The information above is believed to be accurate and represents the best information currently available to Pure Protein LLC. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.