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MATERIAL SAFETY DATA SHEET

Revision Number: 1.0
Revision Date: January 21, 2013

I. Identification

Product name: Pressurized Protein Toxin Simulant
CAS Number: N/A
Catalog number: 7000-0000-05

II. Composition, Information on Ingredients

The identity of individual components of this mixture is proprietary information and is regarded to be a trade secret. This mixture contains no suspected carcinogens as reported by NTP, ACGIH, OSHA or IARC at 0.1% concentration or greater.

Reportable Components:

Compound	CAS Registry No.	Composition % (vol.)
Propane	74-98-6	21%
Butane	106-97-8	10%
Acetone	67-64-1	69%
Protein	N/A	<0.2%

Name: Propane; RTECS #: TX2275000; = Wt: 14; OSHA PEL: 1800 MG/M3; 1000 PPM

Name: Butane; RTECS #: EJ4200000; = Wt: 6; ACGIH TLV: 1900 MG/M3; 800 PPM

Name: Acetone; RTECS #: AL3150000; = Wt: 42 OSHA PEL: 2400 MG/M3; 1000 PPM;
ACGIH TLV: 1780 MG/M3; 750 PPM; ACGIH STEL: 2380 MG/M3; 1000 PPM;

EPA Rpt Qty: 5000 LBS; DOT Rpt Qty: 5000 LBS

III. Health Hazard Data

Reports of Carcinogenicity: NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic: irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death. Chronic: prolonged overexposure to solvent ingredients may cause adverse effects to liver, urinary, blood-forming, cardiovascular & reproductive systems. Reports have associated repeated or prolonged overexposure to solvents with permanent brain & nervous system damage.

Explanation of Carcinogenicity: no ingredient in these products is an IARC, NTP OR OSHA listed carcinogen.

Effects of Overexposure: headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists. Tenderness and itching or burning sensation may indicate eye or excessive skin exposure.

Medical Conditions Aggravated by Exposure: none generally recognized.

IV. Emergency and First Aid Procedures

First Aid: if inhaled: if affected, remove from exposure. Restore breathing. Keep warm and quiet. If on skin: wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before re use. If in eyes: flush with large amounts of water for 15 minutes. Get medical attention. If swallowed: never give anything by mouth to an unconscious person. Do not induce vomiting. Give conscious patient several glasses of water. Seek medical attention.

V. Fire and Explosion Hazard Data

Flash Point Method: PMCC

Flash Point: <-17.6C, 0.F

Lower Limits: 1.0

Upper Limits: 13.1

Extinguishing Media: carbon dioxide, dry chemical, foam.

Fire Fighting Procedures: full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable.

Water may be used to cool closed containers to prevent pressure build-up and possible auto-ignition or explosion when exposed to extreme heat.

Unusual Fire/Explosion hazard: closed containers may explode (due to build-up of pressure) when exposed to extreme heat. Isolate from heat, electrical equipment, sparks & open flame. Application to hot surfaces requires special pre cautions. During emergency conditions overexposure to decomposition products may cause a health hazard.

VI. Physical Data

HCC:V3

Boiling Pt: B.P. Text:<0 - 302F

Vapor Density: >AIR

VOC Grams/Liter: 2.84

Evaporation Rate & Reference: faster than ether

Hazardous Decomposition Products: by fire: carbon dioxide, carbon monoxide, oxides of metals in ingredients.

VII Stability/Reactivity

Stability and Reactivity: The product is stable.

Conditions to avoid: not available.

Materials to avoid: not available.

Hazardous Decomposition products: not available.

VIII. Toxicology Information

Acetone	LD50	5800 mg/kg	Oral	Rat
	LD50	5340 mg/kg	Oral	Rabbit
	LDLo	714 mg/kg	Oral	Human
	LDLo	8000 mg/kg	Oral	Dog

Chronic effects on humans: carcinogenic effects A4 (Not classifiable for humans or animals.) by ACGIH. Causes damage to the following organs: upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

Other toxic effects on humans: Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Specific effects: No known significant effects or critical hazards.

Carcinogenic effects: No known significant effects or critical hazards.

Mutagenic effects: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Inhalation: Irritating to respiratory system.

Eyes: Irritating to eyes.

Skin: Irritating to skin.

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IX. Spill and Leak Procedures

Accidental release measures: remove all sources of ignition. Ventilate and remove with inert absorbent.

Handling and storage precautions: keep away from heat, sparks & open flame. Vapors will accumulate readily & may ignite explosively. During use & until all vapors are gone. Keep area ventilated - do not smoke-extinguish all flames, pilot lights & heaters - turn off stoves, electric tools & appliances, any other sources of ignition.

Other precautions: consult NFPA code. Use approved bonding & grounding procedures. Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120°F. Heat from sunlight, radiators, stoves, hot water, & other heat sources could cause containers to burst. Do not take internally. Keep out of the reach of children.

Waste Disposal Method: Waste must be disposed of in accordance with federal, state and local environmental control.

The above information is correct to the best of our knowledge. Users should make independent decisions regarding completeness of the information based on all sources available. Research International, Inc. shall not be held liable for any damage resulting from handling or contact with the above product.