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Safety Data Sheet

1: Identification

Name: **GSPR-1**
Class: Flammable gas (2.1)
Uses to detect gun-powder residues.

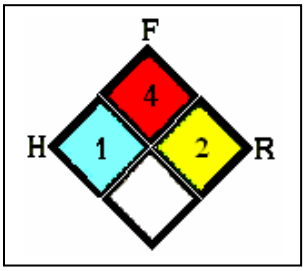
2: Composition/Information on Ingredients

Appearance: Aerosol contains transparent liquid, characteristic odor, soluble in water.

Composition:

Ingredients	Percent w/w
Acetone {67-64-1}	60
Active ingredient	<1
Propellant (LPG) {068476-85-7}	39

3: Hazards Identification



Health (H) Flammability (F) Reactivity (R) in scale 0 (not hazardous) till 4 (extremely hazardous).

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE
FLASH FIRE. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION
TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM.

For Acetone:
Inhalation: Inhalation of vapors irritates the respiratory tract. May cause coughing, dizziness, dullness, and headache. Higher concentrations can produce central nervous system depression, narcosis, and unconsciousness.

Ingestion: Swallowing small amounts is not likely to produce harmful effects. Ingestion of larger amounts may produce abdominal pain, nausea and vomiting. Aspiration into lungs can produce severe lung damage and is a medical emergency. Other symptoms are expected to parallel inhalation.

Skin Contact: Irritating due to defatting action on skin. Causes redness, pain, drying and cracking of the skin.

Eye Contact: Vapors are irritating to the eyes. Splashes may cause severe irritation, with stinging, tearing, redness and pain.

Chronic Exposure: Prolonged or repeated skin contact may produce severe irritation or dermatitis.

Aggravation of Pre-existing Conditions: Use of alcoholic beverages enhances toxic effects. Exposure may increase the toxic potential of chlorinated hydrocarbons, such as chloroform, trichloroethane.

4: First Aid Measures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Aspiration hazard. If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE vomiting. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician immediately.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention.

5: Fire-Fighting Measures

Danger of fire or combustion.
Extinguishing media: Dry chemical, alcohol foam or carbon dioxide. Water may be ineffective. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak and disperse vapors.

Fire Fighting Measures
Fire:
Flash point: -20C (-4F) CC
Autoignition temperature: 465C (869F)
Flammable limits in air % by volume (Acetone): lel: 2.5; uel: 12.8
Flammable limits in air % by volume (LPG): lel: 3; uel: 30 Extremely Flammable Liquid and Vapor! Vapor may cause flash fire.

Explosion:

Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back. Contact with strong oxidizers may cause fire. Sealed containers may rupture when heated. This material may produce a floating fire hazard. Sensitive to static discharge.

Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

6: Accidental Release Measures

Spills from aerosols cans are unlikely and are generally of small volume. In case of actual spill or rupture ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures. US Regulations CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.
J. T. Baker SOLUSORB(tm) solvent adsorbent is recommended for spills of this product.

7. Handling and Storage

Keep away from incompatible materials (see section 10). Contains combustible gas. Keep away from sources of fire, sparks, static electricity, friction or any other heat source that may cause ignition.
Keep in ventilated area. In areas of storage and use, it is advisable that the electrical system will be adjusted to working in an explosive atmosphere. In areas of storage of gas cylinders or tanks, it is advisable to setup sprinklers system to cool the containers in case of fire. Do not pungent, or damage pressurized packages, even if it is small packages.

Safety phrases:
Keep containers in a well-ventilated place.
Keep away from sources of ignition. NO SMOKING!
Do not breath gas or fumes or spray.
Avoid contact with skin and eyes.
Wear suitable protective clothing.
Do not expose to temperatures exceeding 50°C. Store in a cool place.
Do not incinerate aerosol cans.

8: Exposure Control and Personal Protection

Thresholds: Exposure limits (Acetone)
PEL-OSHA 1000 ppm (TWA)
TLV-ACGIH 500 ppm (TWA), 750 ppm (STEL)
REL-NIOSH for 8 hours (Acetone) 400 ppm (TWA); (LPG) 100
Not classifiable as a human carcinogen

Protective equipment: Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.
Personal Respirators (NIOSH Approved):
If the exposure limit is exceeded, a half-face organic vapor respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece organic vapor respirator may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator.
WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Eye Protection: Use c Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.
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WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area. hemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

In case of an Full protective gear and a breathing apparatus should be used, according to the severity

emergency:

9: Physical and Chemical Properties:

Appearance: Clear, colorless, volatile liquid.
Odor: Fragrant, mint-like
Solubility: (Acetone) Miscible in all proportions in water.
Density: (Mixture): 0.69 @ 20°C
pH: No information found.
% Volatiles by volume @ 21C (70F): 100%
Boiling Point: (Acetone) 56.5°C (133F) @ 760 mm Hg; (LPG) - 42°C @ 760 mm Hg
Melting Point: (Acetone) -95°C (-139F)
Vapor Density (Air=1): 2.0
Vapor Pressure (mm Hg): (Acetone)400 @ 39.5°C (104F), (LPG) <1390@ 25°C
Evaporation Rate (n-Butyl Acetate=1): 7.7
Flash point: -40**°C** (LPG)
LEL: 1.8% (LPG) **UEL**: 8.4% (LPG)

10: Stability and Reactivity

Hazardous polymerization: Will not occur.
Stable under ordinary conditions of use and storage.
Chemical reactivity: Extremely flammable. Easily ignites in contact with sources of heat, sparks or flame. Incompatible with concentrated nitric and sulfuric acid mixtures, oxidizing materials, chloroform, alkalis, chlorine compounds, potassium t-butoxide and metal powder.
Hazardous decomposition products:
On fire emits zink oxides, and irritating fumes. Carbon dioxide and carbon monoxide may form when heated to decomposition.
Conditions to Avoid: Heat, flames, ignition sources and incompatibles.

11: Toxicological Information

For Acetone:
LD50 (oral rat) 5800 mg/kg
LC50 (inhalation rat) 50, 100 mg/m3
Irritation eye rabbit. Standard Draize, 20mg severe; investigated as a tumorigen, mutagen, reproductive effector. NTP Carcinogen

For ZINK:
TCL_0 (inhalation human) 124 mg/m^3 (50 minutes)

12: Ecological Information

Environmental hazards: The gas (LPG) may affect the greenhouse effect. The material is slightly toxic to aquatic organisms.

Biodegrability: The gas (LPG) does not bioaccumulate. It slowly oxidizes in air. The liquid phase leaches in soil and may contaminate groundwater.
(For Acetone): When released into the soil, this material is expected to readily biodegrade. When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material is expected to quickly evaporate. When released into water, this material is expected to readily biodegrade. When released to water, this material is expected to quickly evaporate. This material has a log octanol-water partition coefficient of less than 3.0. This material is not expected to significantly bioaccumulate. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material may be moderately degraded by photolysis.
When released into the air, this material is expected to be readily removed from the atmosphere by wet deposition.
Environmental Toxicity:
This material is not expected to be toxic to aquatic life. The LC50/96-hour values for fish are over 100 mg/l.

13: Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with ederal, state and local requirements.
According to the Israeli regulations, industrial spillage into the sewage system will not contain: any solid, liquid or gas, which may cause fire or explosion terms in the sewage system; Liquid which has level of pH below 6 or higher than 9. For additional information, check local regulations.

14: Transport Information

RID/ADR: UN 1950; AEROSOL, containing flammable gas. Class 2.1
UN recommendations: UN 1950; AEROSOL, containing flammable gas. Class 2.1; LABEL ‘FLAMMABLE GAS’; HAZCHEM: 2WE (ORANGE BOOK 12).

IMCO: UN 1950; AEROSOL, containing flammable gas. Class 2.1
Transport of flammable gas in quantity over 200 liters or kilograms, is subject to the Israeli transport law 1997, and transport regulations 2001.

15: Regulatory Information

Listed in the Israeli Hazardous Material regulations under “Liquefied petroleum gas”.
This hazardous material, when in quantity less than 8000 kg is classified as Hazmat type B.

According to the Israeli dangerous goods regulations of 1996 and dangerous goods law of 1993, holders of poison type A, or up to 40 type B hazardous materials are not subject to some of the regulations concerning toxic-permit and hazardous material registrations. For further details refer to the dangerous substances law and regulations.
For this material, no ejection regularity was found.
Ethyl alcohol is listed in the Israeli Hazardous Material regulations under “Ethanol”.
This hazardous material, when in concentration below or equal to 80%, is classified as Hazmat type A.
This hazardous material, when in quantity less than 200 kg is classified as Hazmat type B.
According to the Israeli dangerous goods regulations of 1996 and dangerous goods law of 1993, holders of poison type A, or up to 40 type B hazardous materials are not subject to some of the regulations concerning toxic-permit and hazardous material registrations.
For further details refer to the dangerous substances law and regulations.
According to the agreement between the Ministry of the environment and the Israeli Industrial union concerning the emission of toxins to air, the material is classified as dangerous volatile organic compound of type C. Max permitted emission rate 3 kg/hour; Max permitted conc. 150 mg/m^3.
Methyl alcohol is listed in the Israeli Hazardous Material regulations under “Alcohols, liquid”.
This hazardous material, when in quantity less than 100 kg is classified as Hazmat type B.
According to the Israeli dangerous goods regulations of 1996 and dangerous goods law of 1993, holders of poison type A, or up to 40 type B hazardous materials are not subject to some of the regulations concerning toxic-permit and hazardous material registrations. For further details refer to the dangerous substances law and regulations.
According to the agreement between the Ministry of the environment and the Israeli Industrial union concerning the emission of toxins to air, the material is classified as dangerous volatile organic compound of type C. Max permitted emission rate 3 kg/hour; Max permitted conc. 150 mg/m^3.
Possession of flammable gas in quantity over 250 liters (water volume), requires from the holder to have an emergency plan, according to the Israeli business’ license law and regulations of 1993.

16: Other Information

Risk phrases: ***R12, R36/37/38, R22***
Safety phrases: ***S09, S16, S23, S24/25, S36***
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