

SECTION 1: IDENTIFICATION

1.1. PRODUCT IDENTIFIER

Product name : ZP-9F Aerosol
Product code : Not available

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Use of the substance/mixture : Non-Destructive Testing

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Manufacturer
Magnaflux
155 Harlem Ave.
Glenview, IL 60025 - USA
T: 847-657-5300

Distributor

1.4. EMERGENCY TELEPHONE NUMBER

Emergency number : CHEMTREC 800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS classification

Flam. Aerosol 2
Compressed gas
Eye Irrit. 2A
STOT SE 3

2.2. LABEL ELEMENTS

GHS labeling

Hazard pictograms (GHS) :



GHS02

GHS04

GHS07

Signal word (GHS) :

Warning

Hazard statements (GHS) :

Flammable aerosol. Contains gas under pressure; may explode if heated. Causes serious eye irritation. May cause drowsiness or dizziness.

Precautionary statements (GHS) :

Keep away from heat/sparks/open flames/hot surfaces. -No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Wash hands thoroughly after handling. Wear eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Store locked up. Dispose of contents/container in accordance with local/regional/ national/international regulations.

2.3. OTHER HAZARDS

No additional information available.

2.4. UNKNOWN ACUTE TOXICITY (GHS)

Not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. SUBSTANCE

Not applicable.

3.2. MIXTURE

Name	Product identifier	%
Acetone	(CAS No) 67-64-1	45 - 70
Isopropyl alcohol	(CAS No) 67-63-0	10 - 30
Carbon dioxide	(CAS No) 124-38-9	5 - 10

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES

- First-aid measures after inhalation : If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists.
- First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.
- First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Symptoms/injuries after inhalation : May cause drowsiness or dizziness. May cause respiratory tract irritation.
- Symptoms/injuries after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
- Symptoms/injuries after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: FIREFIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

- Suitable extinguishing media : Water fog, foam, dry chemical, carbon dioxide.
- Unsuitable extinguishing media : Do not use water jet.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

- Fire hazard : Flammable aerosol. Products of combustion may include, and are not limited to: oxides of carbon.
- Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

5.3. ADVICE FOR FIREFIGHTERS

- Firefighting instructions : DO NOT fight fire when fire reaches explosives. Evacuate area.
- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Use water spray to keep fire-exposed containers cool.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

- General measures : Remove ignition sources. Use special care to avoid static electric charges. Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

- For containment : Stop leak, if possible without risk. Move containers from spill area. Use only non-sparking tools. Use explosion-proof equipment. Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

6.3. REFERENCE TO OTHER SECTIONS

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

- Additional hazards when processed : Keep away from sources of ignition - No smoking. Hazardous waste due to potential risk of explosion. Pressurized container: Do not pierce or burn, even after use.
- Precautions for safe handling : Do not spray on an open flame or other ignition source. Use non-sparking tools. Use explosion-proof equipment. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area.
- Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- Technical measures : Proper grounding procedures to avoid static electricity should be followed.
- Storage conditions : Keep locked up and out of reach of children. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatibles. Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep in fireproof place.

7.3. SPECIFIC END USE(S)

Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

Acetone (67-64-1)		
ACGIH	ACGIH TWA (mg/m ³)	1188 mg/m ³ /8h
ACGIH	ACGIH TWA (ppm)	500 ppm/8h
ACGIH	ACGIH STEL (mg/m ³)	1782 mg/m ³ /15min
ACGIH	ACGIH STEL (ppm)	750 ppm/15min
OSHA	OSHA PEL (TWA) (mg/m ³)	2400 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
USA - IDLH	US IDLH (ppm)	2500 ppm (10% LEL)
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	590 mg/m ³ /10h
USA - NIOSH	NIOSH REL (TWA) (ppm)	250 ppm/10h
Isopropyl alcohol (67-63-0)		
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	400 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	980 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	400 ppm
USA - IDLH	US IDLH (ppm)	2000 ppm (10% LEL)
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	980 mg/m ³
USA - NIOSH	NIOSH REL (TWA) (ppm)	400 ppm
USA - NIOSH	NIOSH REL (STEL) (mg/m ³)	1225 mg/m ³
USA - NIOSH	NIOSH REL (STEL) (ppm)	500 ppm
Carbon dioxide (124-38-9)		
ACGIH	ACGIH TWA (mg/m ³)	9000 mg/m ³ /8h
ACGIH	ACGIH TWA (ppm)	5000 ppm/8h
ACGIH	ACGIH STEL (mg/m ³)	54000 mg/m ³ /15min
ACGIH	ACGIH STEL (ppm)	30000 ppm/15min
OSHA	OSHA PEL (TWA) (mg/m ³)	9000 mg/m ³ /8h
OSHA	OSHA PEL (TWA) (ppm)	5000 ppm/8h
USA - IDLH	US IDLH (ppm)	40000 ppm
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	9000 mg/m ³ /10h
USA - NIOSH	NIOSH REL (TWA) (ppm)	5000 ppm/10h
USA - NIOSH	NIOSH REL (STEL) (mg/m ³)	54000 mg/m ³ /15min
USA - NIOSH	NIOSH REL (STEL) (ppm)	30000 ppm/15min

8.2. EXPOSURE CONTROLS

Appropriate engineering controls	: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
Hand protection	: Wear chemically resistant protective gloves.
Eye protection	: Safety glasses with side-shields.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls	: Maintain levels below Community environmental protection thresholds.
Other information	: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

Physical state	: Gas/Pressurized Liquid
Appearance	: Clear
Color	: White
Odor	: Characteristic
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Flammable
Explosion limits	: No data available
Explosive properties	: Pressurised container: May burst if heated
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Solubility	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. OTHER INFORMATION

VOC content	: 656.43 g/l
VOC minus exempt solvents	: 221.87 g/l
Heat of combustion	: 9 896 Btu/lb

SECTION 10: STABILITY AND REACTIVITY**10.1. REACTIVITY**

No dangerous reaction known under conditions of normal use.

10.2. CHEMICAL STABILITY

Flammable aerosol. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Extreme risk of explosion by shock, friction, fire or other sources of ignition.

Prepared according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reaction known under conditions of normal use.

10.4. CONDITIONS TO AVOID

Sources of ignition. Heat. Incompatible materials.

10.5. INCOMPATIBLE MATERIALS

Strong oxidizing agents, aldehydes, halogenated hydrocarbons, halogens, strong acids.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

May include, and are not limited to: oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Acute toxicity : Not classified

ZP-9F Aerosol	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 5 mg/l/4h

Acetone (67-64-1)	
LD50 oral rat	5800 mg/kg
LC50 inhalation rat	76 mg/l/4h (female)
LC50 inhalation rat	132 mg/l/3h (male)

Isopropyl alcohol (67-63-0)	
LD50 oral rat	5840 mg/kg
LD50 dermal rabbit	> 12800 mg/kg
LC50 inhalation rat	> 10000 ppm/6h

Skin corrosion/irritation : Based on available data, the classification criteria are not met.
 Serious eye damage/irritation : Causes serious eye irritation.
 Respiratory or skin sensitization : Based on available data, the classification criteria are not met.
 Germ cell mutagenicity : Based on available data, the classification criteria are not met.
 Carcinogenicity : Based on available data, the classification criteria are not met.

Isopropyl alcohol (67-63-0)	
IARC group	3 - Not classifiable

Reproductive toxicity : Based on available data, the classification criteria are not met.
 Specific target organ toxicity (single exposure) : May cause drowsiness or dizziness.
 Specific target organ toxicity (repeated exposure) : Based on available data, the classification criteria are not met.
 Aspiration hazard : Based on available data, the classification criteria are not met.
 Symptoms/injuries after inhalation : May cause drowsiness or dizziness. May cause respiratory tract irritation.
 Symptoms/injuries after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
 Symptoms/injuries after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
 Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

Ecology - general : May cause long-term adverse effects in the aquatic environment.

12.2. PERSISTENCE AND DEGRADABILITY

ZP-9F Aerosol	
Persistence and degradability	Not established.

12.3. BIOACCUMULATIVE POTENTIAL

ZP-9F Aerosol	
Bioaccumulative potential	Not established.

Prepared according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

12.4. MOBILITY IN SOIL

No additional information available.

12.5. OTHER ADVERSE EFFECTS

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

Additional information : Pressurized container: Do not pierce or burn, even after use. Flammable vapors may accumulate in the container.

SECTION 14: TRANSPORT INFORMATION

In accordance with DOT/TDG/IATA/IMDG

DOT Ground : Consumables, Limited Quantity
 TDG : Consumables, Limited Quantity
 IATA : UN 1950, Aerosols, Flammable, 2.1
 IMDG : UN 1950, Aerosols, 2.1 (Limited Quantity)

ADDITIONAL INFORMATION

Other information : No supplementary information available.
 Special transport precautions : Do not handle until all safety precautions have been read and understood.

SECTION 15: REGULATORY INFORMATION

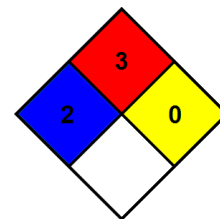
15.1. FEDERAL REGULATIONS

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

Acetone (67-64-1)	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA
Isopropyl alcohol (67-63-0)	
Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA
SARA Section 313 - Emission Reporting	1.0 %

NFPA health hazard : 2
 NFPA fire hazard : 3
 NFPA reactivity : 0



15.2. US STATE REGULATIONS

ZP-9F Aerosol	
State or local regulations	This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

SECTION 16: OTHER INFORMATION

Date of issue : 03/18/2016
 Revision date : 10/19/2018
 Other information : None.

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