

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product number Jac9800
Product name **PrintFix**
Effective date 03-08-2022

Emergency telephone US General Assistance
Emergency telephone outside US 800-424-9300
Version # 703-527-3887
Supersedes date 01
03-08-2022

2. Hazards Identification

Emergency overview FLAMMABLE
CONTENTS UNDER PRESSURE. Aerosol. Will be easily ignited by heat, spark or flames.
Prolonged exposure may cause chronic effects.

Potential health effects

Routes of exposure Ingestion. Skin contact.

Eyes Health injuries are not known or expected under normal use.

Skin Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

Inhalation Intentional misuse by concentrating and inhaling the product can be harmful or fatal. Prolonged inhalation may be harmful.

Ingestion Exposure by ingestion of an aerosol is unlikely. May cause delayed lung damage. Components of the product may be absorbed into the body by ingestion.

Target organs Central nervous system. Lungs.

Chronic effects May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. May cause delayed lung damage. Prolonged skin contact may defat the skin and produce dermatitis.

Signs and symptoms Discomfort in the chest. Narcosis. Defatting of the skin. Irritation.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Isopropyl Alcohol	67-63-0	40 - 50
Dimethyl Ether	115-10-6	20 - 30
Isobutane	75-28-5	15 - 20
Propane	74-98-6	5 - 8
n-Butyl Acetate	123-86-4	1 - 3
n-Butanol	71-36-3	1 - 3
Non-hazardous and other components below reportable levels		2.5 - 10

4. First Aid Measures

First aid procedures

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops or persists.

Skin contact	Immediately take off all contaminated clothing. Wash off with warm water and soap. Get medical attention if irritation develops or persists.
Inhalation	Move to fresh air. If symptoms persist, get medical attention.
Ingestion	If material is ingested, immediately contact a poison control center. Have victim rinse mouth thoroughly with water. Do not induce vomiting without advice from poison control center. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

5. Fire Fighting Measures

Flammable properties	Vapor or gas may spread to distant ignition sources and flash back. Runoff to sewer may cause fire or explosion hazard.
Extinguishing media	
Suitable extinguishing media	Alcohol foam. Dry chemical. Carbon dioxide (CO2). Do not use water jet.
Protection of firefighters	
Protective equipment and precautions for firefighters	In the event of fire and/or explosion do not breathe fumes. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Containers should be cooled with water to prevent vapor pressure build up. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

6. Accidental Release Measures

Methods for containment	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Stop the flow of material, if this is without risk. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Should not be released into the environment. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly.

7. Handling and Storage

Handling	Pressurized container: Do not pierce or burn, even after use. Do not handle or store near an open flame, heat or other sources of ignition. Do not use if spray button is missing or defective. Use only with adequate ventilation. Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure.
Storage	Level 3 Aerosol. Contents under pressure. Do not puncture, incinerate or crush. The pressure in sealed containers can increase under the influence of heat. Keep away from heat, sparks, and flame. Avoid exposure to long periods of sunlight. Store in cool place. Keep in an area equipped with sprinklers. Keep out of the reach of children. Level 3 Aerosol. Do not store, incinerate, or heat this material above 120 degrees Fahrenheit.

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH

Components

Components	CAS #	TWA	STEL	Ceiling
Isopropyl Alcohol	67-63-0	200 ppm	400 ppm	Not established
Isobutane	75-28-5	1000 ppm	Not established	Not established
Propane	74-98-6	1000 ppm	Not established	Not established
n-Butyl Acetate	123-86-4	150 ppm	200 ppm	Not established
n-Butanol	71-36-3	20 ppm	Not established	Not established

OSHA

Components	CAS #	TWA	STEL	Ceiling
Isopropyl Alcohol	67-63-0	400 ppm	Not established	Not established
Propane	74-98-6	1000 ppm	Not established	Not established
n-Butyl Acetate	123-86-4	150 ppm	Not established	Not established
n-Butanol	71-36-3	100 ppm	Not established	Not established

Personal protective equipment

Eye / face protection	Wear chemical goggles.
Skin protection	Wear appropriate chemical resistant gloves. Wear appropriate chemical resistant clothing.
Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

9. Physical & Chemical Properties

Appearance	Compressed liquefied gas.
Boiling point	89.6 °F (32.2 °C) estimated
Color	clear colorless
Flammability (HOC)	31.1709 kJ/g estimated
Flash back	Yes
Flash point	-156 °F (-104.4 °C) Propellant
Form	Aerosol.
Odor	Solvent.
pH	Not applicable
Physical state	Liquid.
Pressure	65 - 75 psig @70F
Solubility	Partially
Specific gravity	0.6992 estimated

10. Chemical Stability & Reactivity Information

Chemical stability	Risk of ignition. May form explosive peroxides.
Conditions to avoid	Heat, flames and sparks.
Hazardous decomposition products	May include oxides of sulphur.

11. Toxicological Information

Acute effects Acute LD50: 23573 mg/kg estimated, Rat, Dermal

Component analysis - LD50**Toxicology Data - Selected LD50s and LC50s**

Dimethyl Ether	115-10-6	Inhalation LC50 Rat 308.5 mg/L 4 h
Isobutane	75-28-5	Inhalation LC50 Rat 658 mg/L 4 h
Isopropyl Alcohol	67-63-0	Inhalation LC50 Rat 72.6 mg/L 4 h; Oral LD50 Rat 4396 mg/kg; Dermal LD50 Rat 12800 mg/kg; Dermal LD50 Rabbit 12870 mg/kg
n-Butanol	71-36-3	Inhalation LC50 Rat >17.7 mg/L 4 h; Inhalation LC50 Rat 8000 ppm 4 h; Oral LD50 Rat 790 mg/kg; Dermal LD50 Rabbit 3400 mg/kg
n-Butyl Acetate	123-86-4	Inhalation LC50 Rat 390 ppm 4 h; Oral LD50 Rat 10768 mg/kg; Dermal LD50 Rabbit >17600 mg/kg
Propane	74-98-6	Inhalation LC50 Rat 658 mg/L 4 h

Sensitization Not expected to be hazardous by OSHA criteria.

Teratogenicity Not expected to be hazardous by OSHA criteria.

12. Ecological Information

Ecotoxicity Components of this product are hazardous to aquatic life.

LC50 1027 mg/L estimated, Fish, 96.00 Hours,
 EC50 23494 mg/L estimated, Daphnia, 48.00 Hours,
 IC50 1856 mg/L estimated, Algae, 72.00 Hours,

13. Disposal Considerations

Waste codes D001: Waste Flammable material with a flash point <140 F

Disposal instructions Contents under pressure. Dispose of this material and its container at hazardous or special waste collection point. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose in accordance with all applicable regulations.

14. Transport Information

Department of Transportation (DOT) Requirements

Basic shipping requirements:

Proper shipping name Consumer commodity
Hazard class ORM-D
Subsidiary hazard class None

Additional information:

Packaging exceptions 156, 306
Packaging non bulk 156, 306
Packaging bulk None

IMDG

Basic shipping requirements:

Proper shipping name AEROSOLS
Hazard class 2.1
UN number 1950

Additional information:

Packaging exceptions LTD QTY
Labels required NONE



IATA

Basic shipping requirements:

Proper shipping name Aerosols, flammable
Hazard class 2.1
UN number 1950

Additional information:

Packaging exceptions LTD QTY
Labels required 2.1



15. Regulatory Information

US federal regulations

OSHA Process Safety Standard: This material is not known to be hazardous by the OSHA Highly Hazardous Process Safety Standard, 29 CFR 1910.119.
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Isopropyl Alcohol	67-63-0	1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)
n-Butanol	71-36-3	1.0 % de minimis concentration

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

CERCLA (Superfund) reportable quantity

n-Butyl Acetate: 5000.0000
n-Butanol: 5000.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
 Delayed Hazard - No
 Fire Hazard - Yes
 Pressure Hazard - Yes
 Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of New and Existing Chemicals (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations**U.S. - Pennsylvania - RTK (Right to Know) List**

Dimethyl Ether	115-10-6	Present
Isobutane	75-28-5	Present
Isopropyl Alcohol	67-63-0	Environmental hazard
n-Butanol	71-36-3	Present
n-Butyl Acetate	123-86-4	Environmental hazard
Propane	74-98-6	Present

16. Other Information**Further information**

HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 1
 Flammability: 4
 Physical hazard: 0

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

MSDS sections updated

Product and Company Identification: Product and Company Identification

Prepared by

Regulatory Compliance

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