

MATERIAL SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Union REACH Regulations

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **Fluid, Fyrite, CO2**
MSDS NUMBER: 99-0006
PRODUCT NUMBER: 11-0057
CHEMICAL FORMULA: Mixture
CAS NUMBER: None
PRODUCT USE: Instrument Fluid
U.N. NUMBER: UN 1814
U.N. DANGEROUS GOODS CLASS: Potassium Hydroxide Solution
SUPPLIER/MANUFACTURER'S NAME: Bacharach, Inc..
ADDRESS: 621 Hunt Valley Circle, New Kensington, PA 15068 USA
EMERGENCY PHONE: **TOLL-FREE in USA/Canada** 800-424-9300 (Chemtrec)
BUSINESS PHONE: (724) 334-5760
BUSINESS FAX: (724) 334-5763
DATE OF PREPARATION: October 6, 2012
DATE OF LAST REVISION: November 30, 2009

SECTION 2 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: This product is a red liquid with an unpleasant odor. Corrosive liquid. Exposure can cause burns to eyes and skin. May cause narcosis and other nervous system effects. Harmful if swallowed. It is a non-flammable liquid with a flash point greater than 200°F. The Environmental effects of this product have not been investigated however it is expected to have adverse effects in the aquatic environment.

US DOT SYMBOLS



CANADA (WHMIS) SYMBOLS



EUROPEAN and (GHS) Hazard Symbols



Signal Word: **Danger!**

EU LABELING AND CLASSIFICATION:

Classification of the substance or mixture according to Regulation (EC) No1272/2008 Annex 1

EC# 231-791-2 This substance is not classified in the Annex I of Directive 67/548/EEC

EC# 215-181-3 Index# 019-002-00-8

EC# 271-231-4 This substance is not classified in the Annex I of Directive 67/548/EEC

GHS Hazard Classification(s):

Acute Oral Toxicity Category 4

Skin Corrosive Category 1A

Hazard Statement(s):

H302: Harmful if swallowed

H314: Cause severe skin burns and eye damage

Precautionary Statement(s):

P260: Do not breath dust/fume/gas/mist/vapors/spray

P264: Wash hands thoroughly after handling

P271: Use only in well ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection/

Hazard Symbol(s):

[Xn] Harmful [C] Corrosive.

Risk Phrases:

R22: Harmful if swallowed

R35: Causes severe burns

Safety Phrases:

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S36/37/39: Wear suitable protective clothing, gloves, and eye face protection.

S45: In case of accident or if you fell unwell, seek medical advice immediately.

HEALTH HAZARDS OR RISKS FROM EXPOSURE:

ACUTE:

INHALATION May cause eye, mucous membrane and respiratory irritation. Severe overexposures may cause pulmonary edema. Inhalation of isooctyl alcohol may cause headache, dizziness, narcosis and other nervous system effects.

EYE: May cause chemical burns with permanent blindness.

SKIN: May cause chemical burns, severity depending on duration of contact.

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INGESTION: May cause gastrointestinal corrosion, perforation of the esophagus and stomach, abdominal pain, nausea, vomiting, diarrhea, collapse and shock.

CHRONIC: Prolonged or repeated skin contact may cause dermatitis.

TARGET ORGANS:

ACUTE: Eye, Respiratory System, Skin

CHRONIC: Skin

SECTION 3 - COMPOSITION and INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS:	CAS #	EINECS #	ICSC #	WT %	HAZARD CLASSIFICATION; RISK PHRASES
Water	7732-18-5	231-791-2	Not Listed	85 - 95%	HAZARD CLASSIFICATION: None RISK PHRASES: None
Potassium Hydroxide	1310-58-3	215-181-3	0357	5 - 15%	HAZARD CLASSIFICATION: [Xn] Harmful, [C] Corrosive RISK PHRASES: R22, R35
Isooctyl Alcohol	68526-83-0	271-231-4	Not Listed	0.1 – 1%	HAZARD CLASSIFICATION: [F] Flammable RISK PHRASES: R10
Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).					

NOTE: ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250: 2000.

SECTION 4 - FIRST-AID MEASURES

Contaminated individuals of chemical exposure must be taken for medical attention if any adverse effect occurs. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to health professional with contaminated individual.

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical immediate attention.

SKIN CONTACT: Wash skin thoroughly after handling. Seek medical attention. Remove contaminated clothing. Launder before re-use.

INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

INGESTION: If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or MSDS with the victim to the health professional.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing skin, respiratory system or eye problems may be aggravated by prolonged contact.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and reduce over-exposure.

SECTION 5 - FIRE-FIGHTING MEASURES

FLASH POINT:

>200°F

AUTOIGNITION TEMPERATURE:

Not Applicable

FLAMMABLE LIMITS (in air by volume, %):

Lower (LEL): NA Upper (UEL): NA

FIRE EXTINGUISHING MATERIALS:

As appropriate for surrounding fire. Carbon dioxide, foam, dry chemical, halon, or water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Explosion Sensitivity to Mechanical Impact:

Not Sensitive.

Explosion Sensitivity to Static Discharge:

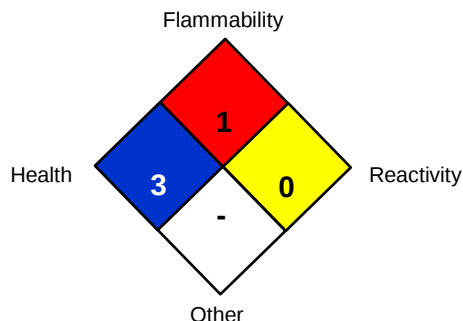
Not Sensitive

SPECIAL FIRE-FIGHTING PROCEDURES:

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

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NFPA RATING SYSTEM



HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
HEALTH HAZARD (BLUE)			3
FLAMMABILITY HAZARD (RED)			1
PHYSICAL HAZARD (YELLOW)			0
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8
For Routine Industrial Use and Handling Applications			

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

SECTION 6 - ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Evacuate unprotected personnel from the area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in section 8. Contain and recover liquid if possible. Use non-sparking tools and equipment. Cover or absorb spilled liquid with sand, earth or other inert material. Clean up spill immediately and place in appropriate containers. Do not discharge to sewers and surface waters. Notify authorities if entry occurs.

U.S. Regulations (CERCLA) requires 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.

Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

SECTION 7 - HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately.

STORAGE AND HANDLING PRACTICES: Containers of this product must be properly labeled. Store containers in a cool, dry location away from heat, flame and incompatible materials. Keep container tightly closed when not in use.

SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS/GUIDELINES:

Chemical Name	CAS#	ACGIH TWA	OSHA TWA
Water	7732-18-5	Not Listed	Not Listed
Potassium Hydroxide	1310-58-3	2 mg/m ³	2 mg/m ³
Isooctyl Alcohol	68526-83-0	50 ppm	50 ppm

Currently, International exposure limits are not established for the components of this product. Please check with competent authority in each country for the most recent limits in place.

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below. Use local exhaust ventilation to control airborne vapors. Ensure eyewash/safety shower stations are available near areas where this product is used.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses or chemical goggles to prevent eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133

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or appropriate Canadian Standards.

HAND PROTECTION: Use chemical resistant gloves to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada.

BODY PROTECTION: Use body protection appropriate to prevent contact (e.g. lab coat, overalls). If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
APPEARANCE & ODOR:	Red liquid with an unpleasant odor.
ODOR THRESHOLD (PPM):	Not Available
VAPOR PRESSURE (mmHg):	Not Available
VAPOR DENSITY (AIR=1):	Not Available.
EVAPORATION RATE (nBuAc = 1):	Not Available
BOILING POINT (C°):	>100°C
FREEZING POINT (C°):	0°C
pH:	13 - 14
SPECIFIC GRAVITY 4°C: (Water = 1)	1 - 2
SOLUBILITY IN WATER (%)	Miscible

SECTION 10 - STABILITY and REACTIVITY

STABILITY: Product is stable

DECOMPOSITION PRODUCTS: Thermal decomposition products include oxides of carbon and potassium.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Strong oxidizing agents, acids, aldehydes, monomers and polymerizable esters, alkylene oxides, halogens, acid anhydrides, metals, acetone, chlorinated hydrocarbons.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Contact with incompatible materials.

SECTION 11 - TOXICOLOGICAL INFORMATION

TOXICITY DATA: Toxicity data is not available for mixture:

CAS# 1310-58-3 LD50 Oral 273 mg/kg Rat

SUSPECTED CANCER AGENT: None of the ingredients are found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC and therefore is not considered to be, nor suspected to be a cancer-causing agent by these agencies.

IRRITANCY OF PRODUCT: Contact with this product can be irritating to exposed skin, eyes and respiratory system.

SENSITIZATION OF PRODUCT: This product is not considered to be a sensitizer.

REPRODUCTIVE TOXICITY INFORMATION: This material has not been tested as a whole. None of the components have been reported to cause adverse reproductive effects in animals or humans.

SECTION 12 - ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ENVIRONMENTAL STABILITY: The product should not be discharged into the environment.

EFFECT OF MATERIAL ON PLANTS or ANIMALS: No Data Available

EFFECT OF CHEMICAL ON AQUATIC LIFE: No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

SECTION 14 - TRANSPORTATION INFORMATION

US DOT: IATA: IMO: ADR:

THIS PRODUCT IS HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME: Potassium Hydroxide Solution

HAZARD CLASS NUMBER and DESCRIPTION: Class 8 Corrosive

UN IDENTIFICATION NUMBER: UN 1814

PACKING GROUP: PGI

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DOT LABEL(S) REQUIRED: Corrosive

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2004): 154

MARINE POLLUTANT: None of the ingredients are classified by the DOT as a Marine Pollutant (as defined by 49 CFR 172.101, Appendix B)

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS:

This product is classified as dangerous goods, per U.S. DOT regulations, under 49 CFR 172.101.

TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:

This product is classified as Dangerous Goods, per regulations of Transport Canada.

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):

This product is classified as Dangerous Goods, by rules of IATA:

INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION:

This product is classified as Dangerous Goods by the International Maritime Organization.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR):

This product is classified by the United Nations Economic Commission for Europe to be dangerous goods.

SECTION 15 - REGULATORY INFORMATION

UNITED STATES REGULATIONS

SARA REPORTING REQUIREMENTS: This product is subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act., as follows: None

TSCA: All components in this product are listed on the US Toxic Substances Control Act (TSCA) inventory of chemicals.

SARA 311/312:

Acute Health: Yes Chronic Health: No Fire: No Reactivity: Yes

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for this product. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) may apply, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ):

CERCLA Reportable Quantity (RQ), CAS# 1310-58-3, 1000 lb (453.6 kg)

CLEAN WATER ACT:

CAS# 1310-58-3 is listed as a Hazardous Substance under the CWA.

STATE REGULATIONS:

CAS# 1310-58-3 can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): This product does not contain an ingredient that is on the California Proposition 65 list.

CANADIAN REGULATIONS:

CANADIAN DSL/NDL INVENTORY STATUS: All of the components of this product are on the DSL Inventory

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: No component of this product is on the CEPA First Priorities Substance Lists.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: This product is categorized as a Controlled Product, WHMIS classification of E, D1B. as per the Controlled Product Regulations



EUROPEAN ECONOMIC COMMUNITY INFORMATION:

EU LABELING AND CLASSIFICATION:

Classification of the mixture according to Regulation (EC) No1272/2008. See section 2 for details.

AUSTRALIAN INFORMATION FOR PRODUCT:

AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES (AICS) STATUS: All components of this product are listed on the AICS.

STANDARD FOR THE UNIFORM SCHEDULING OF DRUGS AND POISONS: Not applicable.

JAPANESE INFORMATION FOR PRODUCT:

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

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INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac:	Listed
Australian Inventory of Chemical Substances (AICS):	Listed
Korean Existing Chemicals List (ECL):	Listed
Japanese Existing National Inventory of Chemical Substances (ENCS):	Listed
Philippines Inventory of Chemicals and Chemical Substances (PICCS):	Listed
Swiss Giftlist List of Toxic Substances:	Listed
U.S. TSCA:	Listed

SECTION 16 - OTHER INFORMATION

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