BBC Biochemical MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name:	**F.S. Acid Alcohol™**	**Code:**	**6520**
Supplier:	**BBC Biochemical**	**MSDS#:**	**6520**
Synonym:	**None.**	**Validation Date:**	**3-4-09**
Trade Name:	**None.**	**Print Date:**	**3-4-09**
Material Uses:	**Staining.**	**Responsible Name:**	**Dr. B**
Manufacturer:	**BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477**	**In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477**	

Section 2. Composition and Information on Ingredients

Name	CAS#	OSHA PEL/TWA	OSHA STEL
1) Water	1737-87-1		
2) Denatured Ethanol Mixuter			
Ethyl Alcohol	64-17-5	1000 ppm	None established
Methyl Alcohol	67-56-1	200 ppm	250 ppm
Isopropyl Alcohol	67-63-0	400 ppm	500 ppm
3) Hydrochloric Acid (conc)	7647-01-0	5 ppm	5 ppm

Section 3. Hazards Identification

Physical State and Appearance	Clear, colorless liquid with a vinous odor.
Emergency Overview	Not available.
Routes of Entry	Eye contact, inhalation, ingestion, skin contact.
Potential Acute Health Effects	
Eyes	Irritation.
Skin	Irritation.
Inhalation	May cause dizziness, headache, nausea, and narcosis.
Ingestion	May cause blindness, nausea, damage to gastrointestinal tract, liver, kidneys, and cardiovascular system.
Potential Chronic Health Effects	Components not listed (IARC, NTP, OSHA) as cancer causing agents.
Medical Conditions Aggravated by Overexposure	Kidney, liver, heart, and GI conditions.
Overexposure/ Signs/Symptoms	

Section 4. First Aid Measures

Eye Contact	Immediately flush thoroughly with water for at least 15 minutes.
Skin Contact	Wash area thoroughly with copious amounts of water. Remove contaminated clothing and clean before wearing again.
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, drink water. Seek medical attention. Do not induce vomiting.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Flammable.
Auto-ignition Temperature	Not available.
Flash Points	About 55° F
Flammable Limits	Not available.
Products of Combustion	Not available.

Fire Hazards in Presence Of Various Substances	Not available.
Explosion Hazards in Presence of Various Substances	Not available.
Fire Fighting Media and Instructions	Dry chemical, carbon dioxide, alcohol foam. Use water spray to cool fire-exposed containers and disperse vapors.
Protective Clothing (Fire)	Fire fighters should use self-contained breathing apparatus and protective clothing.
Special Remarks on Fire Hazards	Vapors can travel distances to ignition source and flash back.
Special Remarks on Explosion Hazards	

Section 6. Accidental Release Measures

Small Spill and Leak	Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.
Large Spill and Leak	Same as above.

Section 7, Handling and Storage

Handling	Use adequate ventilation. Avoid repeated or prolonged skin contact or breathing of vapors. Do not get in eyes.
Storage	Store and use in areas away from heat, sparks, and open flame. Store in tightly closed containers in a cool, dry, well-ventilated, fire-resistant area. Store away from oxidizing agents.

Section 8. Exposure Controls / Personal Protection

Engineering Controls

Personal Protection

Eyes	Safety glasses with approved side shields should be worn at all times. Eye wash station should be available.
Body	Protective clothing should be worn to minimize skin contact. Safety shower should be available.
Respiratory	Use NIOSH of MSHA approved respirators in absence of proper environmental control.
Hands	Neoprene, Nitrile or equivalent gloves should be worn.
Feet	Impervious footwear should be worn to prevent skin contact.
Personal Protection in Case of a Large Spill	See above.

Product Name	**Exposure Limits**
1)Ethyl Alcohol CAS 64-17-5	OSHA PEL 1000ppm TWA
2)Methyl Alcohol CAS 67-56-1	OSHA PEL 200ppm TWA
3)Isopropyl Alcohol CAS 67-63-0	OSHA PEL 400ppm TWA
4)Hydrochloric Acid CAS 7647-01-0	OSHA PEL 5ppm TWA

Consult Local authorities before acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Clear, colorless liquid.	**Odor:**	Vinous.
Molecular Weight	Not applicable.	**Taste:**	Not available.
Molecular Formula	Not applicable.	**Color:**	Colorless.
pH (1%/Water)	Not applicable.		
Boiling/Condensation Point	173° F		
Melting/Freezing Point	Not applicable.		
Critical Temperature	Not applicable.		
Specific Gravity	Not applicable.		
Vapor Pressure	Not applicable.		
Vapor Density	Not applicable.		
Volatility	Not applicable.		
Odor Threshold	Not applicable.		
Evaporation Rate	Not applicable.		
VOC	Not available.		
Viscosity	Not available.		
Ionicity (in water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Complete in water.		
Physical Chemical Comments	Not available.		

Section 10. Stability and Reactivity

Stability and Reactivity	Stable.
Conditions of Instability	Heat.
Incompatibility with Various Substances	Oxidizers.
Hazardous Decomposition Products	Strong oxidizing agents, such as nitrates, perchlorates, peroxides, chromic, nitric and sulfuric acid.
Hazardous Polymerization	Does not occur.

Section 11. Toxicological Information

Toxicity to Animals	Ethyl Alcohol CAS 64-17-5 oral rat LD50: 7060 mg/kg; inhalation rat LC50: 20,000 ppm/10H; Irritation data, eye, rabbit: 500 mg/24H moderate; Investigated as a tumorigen, mutagen, reproductive effector. Methyl alcohol: oral rat LD50: 5628 mg/kg; inhalation rat LC50: 64000 ppm/4H; skin rabbit LD50: 15800 mg/kg; Irritation data,skin,rabbit: 20 mg/24H, Moderate; Investigated as a tumorigen, mutagen, reproductive effector. Isopropyl alcohol: oral rat LD50: 5045 mg/kg; skin rabbit LD50: 12.8 gm/kg; inhalation, rat: 16,000 ppm 8 hr. Isopropyl Alcohol CAS 67-63-0 Oral rat LD50: 5045 mg/kg; skin rabbit LD50: 12.8 gm/kg; inhalation rat LC50: 16,000 ppm/8-hour; Methyl Alcohol CAS 67-56-1 Oral rat LD50: 5628 mg/kg; inhalation rat LC50: 64000 ppm/4H; skin rabbit LD50: 15800 mg/kg; Irritation data-standard Draize test: skin, rabbit: 20mg/24 hr. Moderate; eye, rabbit: 100 mg/24 hr. Hydrochloric Acid CAS 7647-01-0 Inhalation rat LC50: 3124 ppm/1H; oral rabbit LD50: 900 mg/kg
Chronic Effects on Humans	This product contains the following toxic chemical subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372: CAS # Chemical Name Percent by Weight 67-56-1 Methanol <2%
Other Toxic Effects on Humans	
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on Other Toxic Effects on Humans	Not available.

Section 12. Ecological Information

Ecotoxicity	Not available.
BODS and COD	Not available.
Biodegradable/OEDC	Not available.
Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on The Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	Flammable liquid, UN1993, Ethanol, 3, II
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.

Special Provisions for Transport	Not applicable.
TDG Classification	Flammable liquid, UN1993, Ethanol, 3, II
ADR/RID Classification	Not controlled under ADR (Europe).
IMO/IMDG Classification	Not controlled under IMDG.
ICAO/IATA Classification	Check IATA Regulations, Flammable liquid, UN1993, Ethanol, 3, II

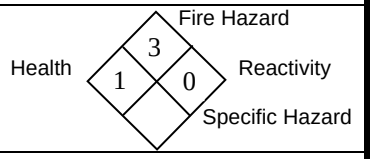
Section 15. Other Information

Label requirements

Hazardous Material Information System (U.S.A.)

Health	1
Fire Hazard	3
Reactivity	0
Personal Protection	

National Fire Protection Association (U.S.A.)



References

Other Special Considerations

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.