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1 Identification

- · Product identifier
- · Trade name: FAA Solution Fixative
- Product code: FA3000
- · Recommended use and restriction on use
- · Recommended use: Laboratory chemicals
- Restrictions on use: No relevant information available.
- · Details of the supplier of the Safety Data Sheet
- **Manufacturer/Supplier:** AquaPhoenix Scientific, Inc. 860 Gitts Run Road Hanover, PA 17331 Phone: (717)632-1291 Toll-Free: (866)632-1291 info@aquaphoenixsci.com
- Emergency telephone number: ChemTel Inc.
 (800)255-3924 (North America) +1 (813)248-0585 (International)

2 Hazard(s) identification

· Classification of the substance or mixture

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Muta. 2 H341 Suspected of causing genetic defects.

Carc. 1B H350 May cause cancer. Route of exposure: Inhalation.

· Label elements

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms:



· Signal word: Danger

· Hazard statements:

H225 Highly flammable liquid and vapor.

- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.

H341 Suspected of causing genetic defects.

H350 May cause cancer. Route of exposure: Inhalation.

· Precautionary statements:

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	(Cont'd. of page 1)
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing mist, vapors, or spray.
P264	Wash thoroughly after handling.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with
	water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use for extinction: Alcohol resistant foam or water spray.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
· Other hazards ⊺	There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Compone	nts:	
64-17-5	Ethanol Flam. Liq. 2, H225 Eye Irrit. 2A, H319	- 779
64-19-7	Acetic acid Flam. Liq. 3, H226 Met. Corr.1, H290; Skin Corr. 1A, H314 Acute Tox. 4, H332	7.69
50-00-0	Formaldehyde Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 Muta. 2, H341; Carc. 1B, H350 Skin Corr. 1B, H314 Skin Sens. 1, H317	_ 5.89
67-56-1	Methanol Flam. Liq. 2, H225 Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 STOT SE 1, H370 Eye Irrit. 2B, H320	- 1.79
	(Cont'd.	on page

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(Cont'd. of page 2) 7.9%

7732-18-5 Water

· Additional information:

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret. For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

Description of first aid measures General information: Immediately remove any clothing soiled by the product.
 After inhalation: Supply fresh air; consult doctor in case of complaints. After skin contact:
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If skin irritation continues, consult a doctor.
· After eye contact:
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· After swallowing:
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
Most important symptoms and effects, both acute and delayed:
Coughing
Dizziness
Allergic reactions
Irritant to skin and mucous membranes.
Causes eye irritation.
Causes skin irritation.
Gastric or intestinal disorders when ingested.
Acidosis
Disorientation
· Danger:
May cause cancer. Route of exposure: Inhalation.
Suspected of causing genetic defects.
 Indication of any immediate medical attention and special treatment needed:
Medical supervision for at least 48 hours.
Contains Formaldehyde. May produce an allergic reaction.
If medical advice is needed, have product container or label at hand.
5 Fire-fighting measures

· Extinguishing media

Suitable extinguishing agents:
 Alcohol resistant foam
 Water fog / haze
 Water spray
 Gaseous extinguishing agents
 Carbon dioxide
 Fire-extinguishing powder

• For safety reasons unsuitable extinguishing agents: Water stream.

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• Special hazards arising from the substance or mixture Highly flammable liquid and vapor. Formation of toxic gases is possible during heating or in case of fire.

· Advice for firefighters

· Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information:

Eliminate all ignition sources if safe to do so. Use large quantities of foam as it is partially destroyed by the product.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Keep away from ignition sources.

Protect from heat.

Wear protective equipment. Keep unprotected persons away.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

• Environmental precautions Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

• Methods and material for containment and cleaning up Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders). Send for recovery or disposal in suitable receptacles.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· Handling

· Precautions for safe handling:

Prevent formation of aerosols.

Avoid splashes or spray in enclosed areas.

Use only in well ventilated areas.

Information about protection against explosions and fires:

Highly flammable liquid and vapor.

Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

Keep respiratory protective device available.

Flammable gas-air mixtures may be formed in empty containers/receptacles.

• Conditions for safe storage, including any incompatibilities • Requirements to be met by storerooms and receptacles:

Store in a cool location. Avoid storage near extreme heat, ignition sources or open flame.

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- Information about storage in one common storage facility: Store away from foodstuffs.
 Do not store together with alkalis (caustic solutions).
 Store away from oxidizing agents.
 Further information about storage conditions: Keep containers tightly sealed.
- Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

· Control param	eters	
· Components with	th limit values that require monitoring at the workplace:	
64-17-5 Ethanol		
PEL (USA)	Long-term value: 1900 mg/m ³ , 1000 ppm	
REL (USA)	Long-term value: 1900 mg/m ³ , 1000 ppm	
TLV (USA)	Short-term value: 1880 mg/m ³ , 1000 ppm	
EL (Canada)	Short-term value: 1000 ppm	
EV (Canada)	Long-term value: 1,900 mg/m ³ , 1,000 ppm	
LMPE (Mexico)	Long-term value: 1000 ppm A3	
64-19-7 Acetic a	cid	
PEL (USA)	Long-term value: 25 mg/m ³ , 10 ppm	
REL (USA)	Short-term value: 37 mg/m ³ , 15 ppm Long-term value: 25 mg/m ³ , 10 ppm	
TLV (USA)	Short-term value: 37 mg/m ³ , 15 ppm Long-term value: 25 mg/m ³ , 10 ppm	
EL (Canada)	Short-term value: 15 ppm Long-term value: 10 ppm	
EV (Canada)	Short-term value: 37 mg/m ³ , 15 ppm Long-term value: 25 mg/m ³ , 10 ppm	
LMPE (Mexico)	Short-term value: 15 ppm Long-term value: 10 ppm	
50-00-0 Formald	ehyde	
PEL (USA)	Short-term value: 2 ppm Long-term value: 0.75 ppm see 29 CFR 1910.1048(c)	
REL (USA)	Long-term value: 0.016 ppm Ceiling limit value: 0.1* ppm *15-min; See Pocket Guide App. A	
TLV (USA)	Short-term value: 0.37 mg/m³, 0.3 ppm Long-term value: 0.12 mg/m³, 0.1 ppm DSEN; RSEN	
EL (Canada)	Long-term value: 0.3 ppm Ceiling limit value: 1 ppm ACGIH A1; IARC 1; S(D), S(R)	
		(Cont'd. on page 6)

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		(Cont'd. of page 5)
EV (Canada)	Short-term value: 1.0 ppm	
Ceiling limit value	1.5 ppm	
LMPE (Mexico)	Ceiling limit value: 0.3 ppm A2, SEN	
67-56-1 Methanol		
PEL (USA)	Long-term value: 260 mg/m ³ , 200 ppm	
REL (USA)	Short-term value: 325 mg/m³, 250 ppm Long-term value: 260 mg/m³, 200 ppm Skin	
TLV (USA)	Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm Skin; BEI	
EL (Canada)	Short-term value: 250 ppm Long-term value: 200 ppm Skin	
EV (Canada)	Short-term value: 325 mg/m³, 250 ppm Long-term value: 260 mg/m³, 200 ppm Skin	
LMPE (Mexico)	Short-term value: 250 ppm Long-term value: 200 ppm PIEL, IBE	
Ingredients with	biological limit values:	
67-56-1 Methanol		
Time:	/L m: urine end of shift eter: Methanol (background, nonspecific)	
The usual precaut Keep away from fo Immediately remov Wash hands befor Store protective cl Do not inhale gase Avoid contact with • Engineering cont	ve and hygienic measures: ionary measures for handling chemicals should be followed. bodstuffs, beverages and feed. ve all soiled and contaminated clothing. re breaks and at the end of work. othing separately. es / fumes / aerosols. the eyes and skin. trols: Provide adequate ventilation. nent: Not required under normal conditions of use.	
Protective	e gloves	
Material of gloves Butyl rubber, BR Fluorocarbon rubb Nitrile rubber, NBF	per (Viton)	(Cont'd. on page 7)

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Neoprene gloves Natural rubber, NR

- Sensibilization by the components in the glove materials is possible.
- · Eye protection:

Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- Body protection: Protective work clothing
- \cdot Limitation and supervision of exposure into the environment
- No relevant information available.

9 Physical and chemical properties		
· Information on basic physical a	nd chemical properties	
· Appearance: Form:	Liquid	
Color:	Colorless	
· Odor:	Pungent	
· Odor threshold:	Not determined.	
· pH-value:	Not determined.	
 Melting point/Melting range: 	Not determined.	
 Boiling point/Boiling range: 	78 °C (172.4 °F)	
· Flash point:	13 °C (55.4 °F)	
· Flammability (solid, gaseous):	Not applicable.	
· Auto-ignition temperature:	~300 °C (~572 °F)	
· Decomposition temperature:	Not determined.	
· Danger of explosion:	Product is not explosive. However, formation of explosive air/ vapor mixtures are possible.	
· Explosion limits		
Lower:	3.5 Vol %	
Upper:	15 Vol %	
· Oxidizing properties:	Not determined.	
· Vapor pressure at 20 °C (68 °F):	59 hPa (44.3 mm Hg)	
· Density at 20 °C (68 °F):	0.83 g/cm³ (6.93 lbs/gal)	
· Relative density:	Not determined.	
· Vapor density:	Not determined.	
· Evaporation rate:	Not determined.	
 Solubility in / Miscibility with 		
Water:	Fully miscible.	
· Partition coefficient (n-octanol/wate	er): Not determined.	
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 Viscosity Dynamic: Kinematic:
 Other information

Not determined. Not determined. No relevant information available.

10 Stability and reactivity

- · Reactivity: No relevant information available.
- · Chemical stability: Stable under normal temperatures and pressures.
- Thermal decomposition / conditions to be avoided:
- No decomposition if used and stored according to specifications.
- Possibility of hazardous reactions
 Highly flammable liquid and vapor.
 Reacts with alkali (lyes).
 Reacts violently with oxidizing agents.
 Toxic fumes may be released if heated above the decomposition point.
 Conditions to avoid
 Example 1
 Example 2
 Example 2

Keep ignition sources away - Do not smoke. Store away from oxidizing agents.

- Incompatible materials Oxidizers
- Hazardous decomposition products
 Under fire conditions only:
 Carbon monoxide and carbon dioxide

11 Toxicological information

· Acute toxicity: May be harmful if swallowed, in contact with skin or if inhaled.

· LD/LC50 values that are relevant for classification:

ATE (Acu	ATE (Acute Toxicity Estimate)		
Oral	LD50	2100-2800 mg/kg	
Dermal	LD50	3800-4300 mg/kg	
Inhalative	LC50/4h	25-35 mg/l	
64-17-5 Et	64-17-5 Ethanol		
Oral	LD50	7060 mg/kg (rat)	
Inhalative	LC50/4h	20000 mg/l (rat)	
50-00-0 Formaldehyde			
Oral	LD50	>200 mg/kg (rat)	
Primary irritant effect:			
 On the skin: Irritant to skin and mucous membranes. 			
	On the eye: Causes eye irritation.		
 Sensitization: Sensitization possible through skin contact. 			
· IARC (Inte	· IARC (International Agency for Research on Cancer):		

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64-17-5 Ethanol	1
50-00-0 Formaldehyde	1
· NTP (National Toxicology Program):	
50-00-0 Formaldehyde	K
· OSHA-Ca (Occupational Safety & Health Administration):	
50-00-0 Formaldehyde	
Probable route(s) of exposure:	
Ingestion.	
Inhalation.	
Eye contact.	
Skin contact.	
 Acute effects (acute toxicity, irritation and corrosivity): 	
Irritating to eyes and skin.	
May be harmful if swallowed, in contact with skin or if inhaled.	
Repeated dose toxicity:	
May cause sensitisation by skin contact.	
Danger of very serious irreversible effects.	
Germ cell mutagenicity: Suspected of causing genetic defects.	
· Carcinogenicity: May cause cancer. Route of exposure: Inhalation.	
• Reproductive toxicity: Based on available data, the classification criteria are not met.	
• STOT-single exposure: Based on available data, the classification criteria are not met.	
• STOT-repeated exposure: Based on available data, the classification criteria are not me	t.
• Aspiration hazard: Based on available data, the classification criteria are not met.	

12 Ecological information

- · Toxicity
- · Aquatic toxicity No relevant information available.
- · Persistence and degradability No relevant information available.
- · Bioaccumulative potential: No relevant information available.
- · Mobility in soil: No relevant information available.
- · Additional ecological information
- · General notes:

Do not allow product to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No relevant information available.

13 Disposal considerations

Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. The user of this material has the responsibility to dispose of unused material, residues and containers in

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compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

Uncleaned packagings

• Recommendation: Disposal must be made according to official regulations.

• Recommended cleansing agent: Water, if necessary with cleansing agents.

UN-Number DOT, ADR/RID/ADN, IMDG, IATA	UN1993
UN proper shipping name DOT ADR/RID/ADN, IMDG IATA	Flammable liquids, n.o.s. (Ethanol, Acetic acid, glaci FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETH ALCOHOL), ACETIC ACID, GLACIAL) FLAMMABLE LIQUID, N.O.S. (ETHANOL, ACE ACID, GLACIAL)
Transport hazard class(es)	- , ,
DOT	
Class Label	3 3
ADR/RID/ADN	
Class Label	3 (F1) 3
IMDG, IATA	
Class	3
Label	3
Packing group DOT, ADR/RID/ADN, IMDG, IATA	II
Environmental hazards	Not applicable.
Special precautions for user Danger code (Kemler):	Warning: Flammable liquids 33

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		(Cont'd. of page 10)
EMS Number: Segregation groups	F-E, <u>S-E</u> Acids	
 Transport in bulk according to Annex MARPOL73/78 and the IBC Code 	II of Not applicable.	
15 Regulatory information		
 Safety, health and environmental re mixture United States (USA) SARA 	gulations/legislation specific fo	r the substance or
· Section 302 (extremely hazardous substa	nces):	
None of the ingredients are listed.		
Section 355 (extremely hazardous substa	nces):	
50-00-0 Formaldehyde		
Section 313 (Specific toxic chemical listin		
	gs):	
50-00-0 Formaldehyde 67-56-1 Methanol	gs):	

· TSCA (Toxic Substances Control Act)

All ingredients are listed.

50-00-0 Formaldehyde

· Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

15000

Proposition 65 (California)

· Chemicals known to cause cancer:

64-17-5 Ethanol

50-00-0 Formaldehyde

· Chemicals known to cause developmental toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

64-17-5 Ethanol

67-56-1 Methanol

· EPA (Environmental Protection Agency):

50-00-0 Formaldehyde

· IARC (International Agency for Research on Cancer):

64-17-5 Ethanol

50-00-0 Formaldehyde

· Canadian Domestic Substances List (DSL) (Substances not listed.):

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All ingredients are listed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

 Abbreviations and acronyms: ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistant, Bio-accumulable, Toxic vPvB: very Persistent and very Bioaccumulative OSHA: Occupational Safety & Health Administration Flam. Liq. 2: Flammable liquids – Category 2 Flam. Liq. 3: Flammable liquids – Category 3 Met. Corr.1: Corrosive to metals - Category 1 Acute Tox. 3: Acute toxicity – Category 3 Acute Tox. 4: Acute toxicity – Category 4 Skin Corr. 1A: Skin corrosion/irritation - Category 1A Skin Corr. 1B: Skin corrosion/irritation - Category 1B Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A Eye Irrit. 2B: Serious eye damage/eye irritation - Category 2B Skin Sens. 1: Skin sensitisation – Category 1 Muta. 2: Germ cell mutagenicity – Category 2 Carc. 1B: Carcinogenicity - Category 1B STOT SE 1: Specific target organ toxicity (single exposure) - Category 1 Sources Website, European Chemicals Agency (echa.europa.eu) Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/ overview/home.do) Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org) Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6 Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5. Safety Data Sheets, Individual Manufacturers SDS Prepared by: ChemTel Inc. 1305 North Florida Avenue Tampa, Florida USA 33602-2902 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573 Website: www.chemtelinc.com