



SAF SAFETY DATA SHEET

This Safety Datasheet complies with the requirements of Regulation (EC) No 1907/2006

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND THE COMPANY/UNDERTAKING

1.1 Product Identifier: SAF

(Sodium Acetate-Acetic Acid-Formalin Solution)
145500, 145501, 1461, 1461A, 146500, 146501, 148920,
148960, 148965, 149920, 149960, 153000, 249400

1.2 Relevant identified uses of the substance or mixture and uses advised against: laboratory chemical (in vitro diagnostic)

1.3 Details of the supplier of the Safety Data Sheet:

Apacor Limited, Unit 5 Sapphire Centre, Fishponds Road,
Wokingham, Berkshire, RG41 2QL, England
+44 (0) 118 979 5566
technical@apacor.com

1.4 Emergency telephone number:

+44 (0)118 979 5566
(Monday-Friday 0900-1700 excluding UK Public Holidays)

SECTION 2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

Acute toxicity, Oral (Category 4), H302
Skin sensitisation (Category 1), H317
Acute toxicity, Inhalation (Category 4), H332
Germ Cell Mutagenicity (Category 2), H341
Carcinogenicity (Category 1B), H350

See Section 16 for the full text of H-Statements mentioned in this Section.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]



Pictogram

Signal word

Danger

Hazard statement(s)

H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H341 Suspected of causing genetic defects.
H350 May cause cancer.
Contains Formaldehyde

Precautionary statements:

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician
P308 + P313 - IF exposed or concerned: Get medical advice/ attention

2.3 Other hazards

No data available.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component: **Formaldehyde**

CAS No: 50-00-0

EC No: 200-001-8

Index No: 605-001-00-5

Classification: Acute Tox. 3 (H301 + H311 + H331); Skin Corr. 1B (H314); Skin Sens. 1 (H317); Muta. 2 (H341); Carc. 1B (H350); Concentration: < 5%

Component: **Methanol**

CAS No: 67-56-1

EC No: 200-659-6

Index No: 603-001-00-x

Registration No: 01-2119433307-44-xxxx

Classification: Flam. Liq. 2 (H225); Acute Tox 3 (H301 + H311 + H331); STOT SE 1 (H370)
Concentration: < 1%

Component: **Acetic Acid**

CAS No: 64-19-7

EC No: 200-580-7

Index No: -

Registration No: -

Classification: Skin Corr. 1A (H314) ; Flam. Liq 3 (H226)
Concentration: ≤ 2%

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact: Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothes and shoes.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (Section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides.



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5.3 Advice for firefighters

Wear self-contained breathing apparatus and full protective gear.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see Section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Contain spillage and place in container for disposal according to local regulations (see Section 13). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal, see Section 13.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition—no smoking. Take measures to prevent the build-up of electrostatic charge. For precautions, see Section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

No other specific uses are specified apart from those listed in Section 1.2.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

	Formaldehyde 50-00-0	Methanol 67-56-1	Acetic Acid 64-19-7
Austria	STEL: 0.5 ppm STEL: 0.6 mg/m ³ TWA: 0.5 ppm TWA: 0.6 mg/m ³	STEL: 800 ppm STEL: 1040 mg/m ³ TWA: 200 ppm TWA: 260 mg/m ³	STEL: 20 ppm STEL: 50 mg/m ³ TWA: 10 ppm TWA: 25 mg/m ³
Belgium	STEL: 0.3 ppm STEL: 0.38 mg/m ³	STEL: 250 ppm STEL: 333 mg/m ³ TWA: 200 ppm TWA: 266 mg/m ³	STEL: 15 ppm STEL: 38 mg/m ³ TWA: 10 ppm TWA: 25 mg/m ³
Denmark	STEL: 0.3 ppm STEL: 0.4 mg/m ³ TWA: 0.3 ppm TWA: 0.4 mg/m ³	STEL: 400 ppm STEL: 520 mg/m ³ TWA: 200 ppm TWA: 260 mg/m ³	STEL: 20 ppm STEL: 50 mg/m ³ TWA: 10 ppm TWA: 25 mg/m ³
France	TWA: 0.5 ppm STEL: 1 ppm	STEL: 1000 ppm STEL: 1300 mg/m ³ TWA: 200 ppm TWA: 260 mg/m ³	STEL: 10 ppm STEL: 25 mg/m ³

	Formaldehyde 50-00-0	Methanol 67-56-1	Acetic Acid 64-19-7
Germany	STEL: 0.6 ppm STEL: 0.74 mg/m ³ TWA: 0.3 ppm TWA: 0.37 mg/m ³	STEL: 800 ppm STEL: 1080 mg/m ³ TWA: 200 ppm TWA: 270 mg/m ³	STEL: 20 ppm STEL: 50 mg/m ³ TWA: 10 ppm TWA: 25 mg/m ³
Ireland	STEL: 2 ppm STEL: 2.5 mg/m ³ TWA: 2 ppm TWA: 2.5 mg/m ³	TWA: 200 ppm TWA: 260 mg/m ³	STEL: 15 ppm STEL: 37 mg/m ³ TWA: 10 ppm TWA: 25 mg/m ³
Italy		TWA: 200 ppm TWA: 260 mg/m ³	TWA: 10 ppm TWA: 25 mg/m ³
Poland	STEL: 1 mg/m ³ TWA: 0.5 mg/m ³	STEL: 300 mg/m ³ TWA: 100 mg/m ³	STEL: 30 mg/m ³ TWA: 15 mg/m ³
Portugal	STEL: 0.3 ppm	STEL: 250 ppm TWA: 200 ppm TWA: 260 mg/m ³	STEL: 15 ppm TWA: 10 ppm TWA: 25 mg/m ³
Spain	STEL: 0.3 ppm STEL: 0.37 mg/m ³	STEL: 250 ppm STEL: 333 mg/m ³ TWA: 200 ppm TWA: 266 mg/m ³	STEL: 15 ppm STEL: 37 mg/m ³ TWA: 10 ppm TWA: 25 mg/m ³
Sweden	STEL: 0.6 ppm STEL: 0.74 mg/m ³ TWA: 0.3 ppm TWA: 0.37 mg/m ³	STEL: 250 ppm STEL: 350 mg/m ³ TWA: 200 ppm TWA: 250 mg/m ³	STEL: 10 ppm STEL: 25 mg/m ³ TWA: 5 ppm TWA: 13 mg/m ³
The Netherlands	STEL: 0.5 mg/m ³ TWA: 0.15 mg/m ³	TWA: 133 mg/m ³	
UK	STEL: 2 ppm STEL: 2.5 mg/m ³ TWA: 2 ppm TWA: 2.5 mg/m ³	STEL: 250 ppm STEL: 333 mg/m ³ TWA: 200 ppm TWA: 266 mg/m ³	

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.2.2 Personal protective equipment

(a) Eye/face protection: Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

(b) Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves should satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

(c) Body Protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

(d) Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.2.3 Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.



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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) **Appearance** aqueous solution Form: colourless liquid
- b) **Odour** characteristic
- c) **Odour threshold** no data available
- d) **pH** no data available
- e) **Melting point / freezing point** no data available
- f) **Initial boiling point and boiling range** 102°C
- g) **Flash point** >105°C
- h) **Evaporation rate** no data available
- i) **Flammability (solid, gas)** no data available
- j) **Upper/lower flammability or explosive limits** no data available
- k) **Vapour pressure** no data available
- l) **Vapour density** >1
- m) **Relative density** 1.071
- n) **Solubility (ies)** Soluble in water
- o) **Partition coefficient: n-octanol/water** no data available
- p) **Auto-ignition temperature** no data available
- q) **Decomposition temperature** no data available
- r) **Viscosity** no data available
- s) **Explosive properties** no data available
- t) **Oxidising properties** no data available

9.2 Other information

No data available.

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

No materials to be mentioned in particular.

10.6 Hazardous decomposition products

Carbon oxides.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information of toxicological effects

Acute toxicity: no data available

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity: IARC: 1 - Group 1: Carcinogenic to humans (Formaldehyde)

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information

Chemical Name	
Formaldehyde	LD50 oral 600 mg/kg (Rat)
	LD50 dermal 270 mg/kg (Rabbit)
	LC50 inhalation 0.578 mg/L (Rat) 4 h
Methanol	LD50 oral - rat - 5628 mg / kg
	LC50 inhalation - rat - 4h - 83.2 mg/l/4h
Acetic Acid	LD50 oral 3310 mg/kg (Rat)
	LD50 dermal 1060 mg/kg (Rabbit)
	LC50 inhalation 11.4 mg/L (Rat) 4 h

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity

Ecotoxicity effects: contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Toxicity to Fish	
Formaldehyde	0.032 - 0.226: 96 h Oncorhynchus mykiss mL/L LC50 flow-through 100- 136: 96 h Oncorhynchus mykiss mg/L LC50 static 1510: 96 h Lepomis macrochirus µg/L LC50 static 22.6 - 25.7: 96 h Pimephales promelas mg/L LC50 flow-through 23.2 - 29.7: 96 h Pimephales promelas mg/L LC50 static 41: 96 h Brachydanio rerio mg/L LC50 static
	Methanol LC50 - Pimephales promelas - 28200 mg / L 96h
	Acetic Acid 75: 96 h Lepomis macrochirus mg/L LC50 static 79: 96 h Pimephales promelas mg/L LC50 static

Toxicity to Daphnia and other Aquatic Invertebrates

Formaldehyde	11.3 - 18: 48 h Daphnia magna mg/L EC50 Static
	2: 48 h Daphnia magna mg/L LC50
Methanol	EC50 - Daphnia magna - >10000 mg/l
Acetic Acid	47: 24 h Daphnia magna mg/L EC50
	65: 48 h Daphnia magna mg/L EC50 Static

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

Chemical Name	log Pow
Formaldehyde	0.35
Methanol	-0.77
Acetic Acid	0

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

12.7 Additional information

None.



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SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: Dispose of waste in accordance with all federal, state, and local regulations.

Contaminated packaging: Dispose of as unused product.

SECTION 14 TRANSPORT INFORMATION

ICAO/IATA: not regulated

14.1 UN number: -

14.2 UN proper shipping name Not dangerous goods

14.3 Transport hazard class(es): -

14.4 Packing group: -

14.5 Environmental hazards: No

14.6 Special precautions for user: no data available

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not intended to be transported in bulk.

SECTION 15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture

No data available.

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out for this product.

SECTION 16 OTHER INFORMATION

Full text of H-Statements referred to in Sections 2 and 3

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H370 Causes damage to organs.

Acute Tox. Acute toxicity

Carc. Carcinogenicity

Flam. Liq. Flammable liquids

Muta. Germ Cell Mutagenicity

Skin Corr. Skin corrosion

Skin Sens. Skin sensitisation

STOT SE Specific target organ toxicity - single exposure

The information supplied in this SDS is correct to the best of our knowledge. We do not accept any liability for loss, injury or damage, which may result from its use.