

Product Name **BOUINS FIXATIVE (FRONINE)**

Ingredient	Conc.	CAS No.
FORMALDEHYDE	10 - 30%	50-00-0
2,4,6-TRINITROPHENOL (PICRIC ACID)	<10%	88-89-1
ACETIC ACID	<10%	64-19-7
WATER	>60%	7732-18-5

Shipping **CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA**
FORMALDEHYDE SOLUTION with not less than 25% formaldehyde

Synonyms BOUIN'S FIXATIVE, BOUINS SOLUTION.

Appearance YELLOW LIQUID

Odour PUNGENT CHARACTERISTIC ODOUR

Use(s) LABORATORY REAGENT, FIXER.

Supplier FRONINE LABORATORY SUPPLIES Ph: 02 9627 3600 Emerg. Ph: 13 11 26

Stock No. 442.

Poison Sched 6

Hazchem Z2

UN No. 2209

D.G Class 8

Pkg Group III

EPG 8A1

Sub/Tert Risk None Allocated

HEALTH HAZARDS

Health Hazard Summary	Toxic - irritant. Use safe work practices to avoid eye or skin contact and vapour inhalation. Direct contact may result in burns with possible tissue damage. Chronic exposure may cause liver, kidney, blood and nerve damage. Formaldehyde is classified as a probable human carcinogen (IARC Group 2A) and may cause skin and respiratory sensitisation. Upon dilution and when used in small quantities the potential for adverse effects will be reduced.
Eye	Irritant - corrosive. Exposure to vapours at very low levels may result in irritation, lacrimation, pain and redness. Direct contact may result in corneal burns and damage.
Inhalation	Irritant - toxic. Over exposure may result in mucous membrane irritation, coughing, chest pain and breathing difficulties with asthma-like symptoms. At high levels; weakness, pulmonary oedema and convulsions. Chronic exposure may include blood, kidney, liver and nerve damage.
Skin	Irritant. Prolonged contact may result in irritation, skin rash, dermatitis, sensitisation and burns. Toxic effects may result through skin absorption.
Ingestion	Toxic. Ingestion may result in gastrointestinal irritation, nausea, vomiting, abdominal pain and bloody diarrhoea. Large doses may cause kidney and liver damage, pulmonary oedema and unconsciousness.

PRECAUTIONS

Flammability	Non flammable. May evolve toxic gases (formaldehyde, carbon oxides, hydrocarbons) when heated to decomposition.
Reactivity	Incompatible with oxidising agents (eg. hypochlorites, peroxides), acids (eg. nitric acid) and alkalis (eg. hydroxides).
Ventilation	Do not inhale vapours. Use in well ventilated areas. Where ventilation is poor, use under a fume cupboard.

PERSONAL PROTECTIVE EQUIPMENT

PPE Wear splash-proof goggles, a laboratory coat and butyl or nitrile gloves. Where an inhalation risk exists, wear a Formaldehyde Respirator. At high vapour levels, wear an Air-line respirator.



Colour
Rating
AMBER

Chem Alert Report

Manufacturer's Material Safety Data Sheet

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FIRST AID

- Eye** Hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre, or for at least 15 minutes.
- Inhalation** Leave area of exposure immediately. If other than minor symptoms occur, seek urgent medical attention. If assisting a victim avoid becoming a casualty, wear a Formaldehyde respirator or an Air-line respirator in confined areas. If victim is not breathing apply artificial respiration and seek URGENT medical advice.
- Skin** Remove contaminated clothing and gently flush affected areas with water. Product may penetrate skin and cause toxic systemic effects. Seek immediate medical attention. Launder clothing before reuse.
- Ingestion** For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor. If swallowed, do not induce vomiting.

SAFE HANDLING

- Storage** Store in cool, dry, well ventilated area, removed from oxidising agents, alkalis, acids and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use.
- Waste Disposal** For small amounts absorb with sand, vermiculite or similar and dispose of to an approved landfill site. For larger volumes (>1L) mix with vermiculite or flammable liquid and burn in incinerator with after burner. Contact the manufacturer for additional information. Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.
- Transport** Class 8 Corrosive. Do not transport with chemicals of class; 1 (Explosives), 4.3 (Dangerous When Wet), 5.1 (Oxidising agents), 5.2 (Organic peroxides), 6 (Toxics - where the Toxic is a cyanide and the Corrosive is an acid), 7 (Radioactives), 8 (where products are acid/alkali) and foodstuffs.

EMERGENCY

- Spillage** If spilt (bulk), contact emergency services. Wear butyl/nitrile gloves, a Full-face Formaldehyde respirator or an Air-line respirator, coveralls and boots. Ventilate and clear area of all unprotected personnel. Eliminate all heat & ignition sources. Absorb with sand or similar and place in containers for disposal. Prevent spill entering drains or waterways. Only trained personnel should undertake cleanup.
- Environment** Formaldehyde is removed from the atmosphere by direct photolysis and oxidation by photochemically produced hydroxyl radicals (half-life of a few hours). Additional quantities are removed by dry deposition, rain or by dissolving in the ocean and other surface waters. If release to water biodegradation takes place in a few days. Toxic to fish and aquatic microorganisms.
- Fire and Explosion** Non flammable. If product is present in a fire, toxic gases may be evolved. Evacuate area and contact emergency services. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.
- Extinguishing** Non flammable. Prevent contamination of drains or waterways, absorb runoff with sand or similar.

PHYSICAL AND CHEMICAL PROPERTIES

Flammability: NON FLAMMABLE
Boiling Point: > 100 C
Exposure Standard: 1 ppm (Formaldehyde)
pH: ACIDIC
Specific Gravity: 1 (Approximately)
Vapour Pressure: 18 mm Hg @ 20C
Lower Explosion Limit: NOT AVAILABLE

Flash Point: NOT AVAILABLE
Melting Point: NOT AVAILABLE
Evaporation Rate: AS FOR WATER
% Volatiles: > 60 % Water
Solubility (water): SOLUBLE
Upper Explosion Limit: NOT AVAILABLE