

SDS no. 8P84EPPU • Version 1.0 • Date of issue: 2024-10-23

Safety Data Sheet

SAF FIXATIVE

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- Acute toxicity, inhalation, Cat. 3
- Acute toxicity, oral, Cat. 4
- Carcinogenicity, Cat. 1
- Serious eye damage/eye irritation, Cat. 1
- Skin corrosion/irritation, Cat. 1B
- Skin sensitizer, Cat. 1

GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

Hazard statement(s)

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H331	Toxic if inhaled
H350	May cause cancer

Precautionary statement(s)

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell,
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/physician
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Stabilised with methanol.

Other components either not classified as Hazardous under the GHS, or below cut-off concentrations to be classified as Hazardous.

Components

Component	CAS no.	Concentration
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Water (EC no.: 231-791-2)	7732-18-5	>= 90 % (weight)
CLASSIFICATIONS: No data available. HAZARDS: No data available.		
FORMALDEHYDE, 37% SOLUTION (EC no.: 200-001-8; Index no.: 605-001-00-5)	50-00-0	< 4 % (weight)
CLASSIFICATIONS: Acute toxicity, dermal, Cat. 3; Acute toxicity, oral, Cat. 3; Skin corrosion/irritation, Cat. 1B; Skin sensitizer, Cat. 1; Acute toxicity, inhalation, Cat. 2; Carcinogenicity, Cat. 1; Hazardous to the aquatic environment, short-term (acute), Cat. 2. HAZARDS: H301 - Toxic if swallowed; H311 - Toxic in contact with skin; H314 - Causes severe skin burns and eye damage; H317 - May cause an allergic skin reaction; H330 - Fatal if inhaled; H350 - May cause cancer [route]; H401 - Toxic to aquatic life. [SCLs/M-factors/ATEs]: STOT SE 3; H335: C ≥ 5 %; Skin Corr. 1B; H314: C ≥ 25 %; Skin Irrit. 2; H315: 5 % ≤ C < 25 %; Eye Irrit. 2; H319: 5 % ≤ C < 25 %; Skin Sens. 1; H317: C ≥ 0,2 %		
Acetic acid (EC no.: 200-580-7; Index no.: 607-002-00-6)	64-19-7	< 2 % (weight)
CLASSIFICATIONS: Flammable liquids, Cat. 3; Skin corrosion/irritation, Cat. 1A. HAZARDS: H226 - Flammable liquid and vapor; H314 - Causes severe skin burns and eye damage. [SCLs/M-factors/ATEs]: Skin Corr. 1A; H314: C ≥ 90 %; Skin Corr. 1B; H314: 25 % ≤ C < 90 %; Skin Irrit. 2; H315: 10 % ≤ C < 25 %; Eye Irrit. 2; H319: 10 % ≤ C < 25 %		
Methanol (EC no.: 200-659-6; Index no.: 603-001-00-X)	67-56-1	< 1 % (weight)
CLASSIFICATIONS: Flammable liquids, Cat. 2; Acute toxicity, inhalation, Cat. 3; Acute toxicity, dermal, Cat. 3; Acute toxicity, oral, Cat. 3; Specific target organ toxicity following single exposure, Cat. 1. HAZARDS: H225 - Highly flammable liquid and vapor; H301 - Toxic if swallowed; H311 - Toxic in contact with skin; H331 - Toxic if inhaled; H370 - Causes damage to organs [organs, route]. [SCLs/M-factors/ATEs]: *; STOT SE 1; H370: C ≥ 10 %; STOT SE 2; H371: 3 % ≤ C < 10 %		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	First Aid Facilities: Maintain eyewash fountain in work area.
If inhaled	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately obtain medical aid if cough or other symptoms appear.
In case of skin contact	Immediately remove contaminated clothing and wash affected area with water for at least 15 minutes. Ensure contaminated clothing is washed before re-use. Seek medical advice /attention depending on the severity.
In case of eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. In all cases of eye contamination it is a sensible precaution to seek medical advice.
If swallowed	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. Give water to drink. DO NOT INDUCE VOMITING. Seek medical advice if symptoms persist.

Most important symptoms/effects, acute and delayed

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

Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Small fire: Use foam, dry chemical, CO2 or water spray.

Large fire: Use foam, fog or water spray. Do not use water jets.

If safe to do so, move undamaged containers from fire area. Cool containers with flooding quantities of water until well after fire is out.

Avoid getting water inside containers.

Alcohol resistant foam is preferred however fine water spray can be used.

Specific hazards arising from the chemical

Hazards from Combustion Products: May liberate toxic fumes in fire including formic acid, methanol, carbon monoxide and carbon dioxide.

Special protective actions for fire-fighters

Wear SCBA, fully-encapsulating, gas-tight suit and structural firefighting uniform when handling leaking or damaged containers and equipment. SCBA and chemical splash suits will offer limited protection for brief exposure provided there is no risk of ignition.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Evacuate the area of all non-essential personnel. Avoid inhalation, contact with skin, eyes and clothing. Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up

Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum.
Seek expert advice on handling and disposal.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid generation of vapours/aerosols. Do not breathe vapour. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Work under hood.
Avoid exposure - obtain special instructions before use.

Conditions for safe storage, including any incompatibilities

Store in cool place and out of direct sunlight. Store away from sources of heat or ignition. Store in well ventilated area. Store away from oxidising agents, acids, alkalis, metal salts and foodstuff. Keep containers closed at all times - check regularly for leaks.

SECTION 8: Exposure controls/personal protection

Control parameters

CAS: 50-00-0

FORMALDEHYDE, 37% SOLUTION

AU/SWA (Australia): 2 ppm; 2.5 mg/m³ STEL inhalation; 1 ppm; 1.2 mg/m³ TWA inhalation;

CAS: 64-19-7

Acetic acid

AU/SWA (Australia): 15 ppm; 37 mg/m³ STEL inhalation; 10 ppm; 25 mg/m³ TWA inhalation;

CAS: 67-56-1

Methanol

AU/SWA (Australia): 250 ppm; 328 mg/m³ STEL inhalation; 200 ppm; 262 mg/m³ TWA inhalation;

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous

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Chemicals.

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Body Protection: Clean clothing or protective clothing should be worn, preferably with and apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	No data available.
Color	No data available.
Odor	Faintly Acetic and sharp.
Odor threshold	No data available.
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	No data available.
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Completely miscible.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	No data available.
Relative vapor density	No data available.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

No data available.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Hazardous Polymerization: Will not occur.

Conditions to avoid

Open flames, heat, hot surfaces, sparks and other ignition sources.

Incompatible materials

Strong oxidizing agents, strong acids, strong bases, alkali metals.

Hazardous decomposition products

Formic acid, methanol, carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD50 (rat): >200 mg/kg (Formaldehyde).

Ingestion: Harmful if swallowed. Ingestion may cause irritation of the mouth, throat and stomach resulting in nausea. In extreme cases swallowing can result in vomiting, diarrhoea, abdominal pain, convulsions, chemical burns, loss of consciousness, collapse and possible death. Risk of perforation in the oesophagus and stomach. Systemic effects: narcosis and blindness.

Inhalation: Harmful if inhaled. Inhalation may lead to the formation of oedemas in the respiratory tract. Vapour is irritating to mucous membranes and the respiratory tract. Inhalation can result in headache, dizziness and possible nausea.

Skin corrosion/irritation

May cause an allergic skin reaction. Repeated or prolonged skin contact may lead to allergic contact dermatitis. A skin sensitizer.

Serious eye damage/irritation

May be an irritant to the eye.

Respiratory or skin sensitization

Respiratory sensitisation: Not classified based on available information.

Skin Sensitisation: Formaldehyde: Known to act as a sensitizer.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

H350 May cause cancer.

Formaldehyde [50-00-0] is evaluated in the IARC Monographs (Vol. 88; in preparation) as Group 1: Carcinogenic to humans.

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For addition information see IARC publication: <http://monographs.iarc.fr/ENG/Monographs/vol100F/mono100F-29.pdf>

Reproductive toxicity

Not classified based on available information.

Specific target organ toxicity (STOT) - single exposure

Not classified based on available information.

Specific target organ toxicity (STOT) - repeated exposure

Not classified based on available information.

Aspiration hazard

Not classified based on available information.

Additional information

Chronic Effects: Repeated or prolonged skin contact may cause chronic dermatitis. Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

FORMALDEHYDE, 37% SOLUTION: *TOXICITY:

typ. dose mode specie amount units other

LDLo orl wmn 108 mg/kg

TCLo ihl hm 17 mg/m³/30M

TCLo ihl man 300 ug/m³

LDLo unr man 477 mg/kg

LD50 orl rat 800 mg/kg

LC50 ihl rat 590 mg/m³

LC50 ihl mam 92 mg/m³

LD50 scu rat 420 mg/kg

LD50 ivn rat 87 mg/kg

LDLo ipr mus 16 mg/kg

LD50 scu mus 300 mg/kg

LD50 orl mus 42 mg/kg

LDLo scu dog 595 mg/kg

LCLo ihl cat 400 mg/m³/2H

LD50 skn rbt 270 mg/kg

LDLo scu rbt 240 mg/kg

LD50 orl gpg 260 mg/kg

LC50 ihl mus 400 mg/m³/2H

LDLo ivn cat 30 mg/kg

LDLo ivn rbt 48 mg/kg

*AQTXTLM96: 100-10 ppm [042]

*SAX TOXICITY EVALUATION:

THR: Human poison by ingestion. Experimental poison by ingestion, skin contact, inhalation, intravenous, intraperitoneal and subcutaneous routes. A suspected human carcinogen. An experimental carcinogen, tumorigen and teratogen. Human systemic effects by inhalation.

Experimental reproductive effects. Human mutagenic data. A human skin and eye irritant. A severe experimental eye and skin irritant. An air concentration of 20 ppm is quickly irritating to eyes. A common air contaminant. The gas is a more dangerous fire hazard than the vapor.

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*CARCINOGENICITY:

Tumorigenic Data:

TDLo: scu-rat 1170 mg/kg/65W-I

TD : scu-rat 350 mg/kg/78W-I

TC : ihl-rat 15 ppm/6H/78W-I

TCLo: ihl-mus 14300 ppb/6H/2Y-I

TC : ihl-rat 6 ppm/6H/2Y-I

TCLo: ihl-rat 14300 ppb/6H/2Y-I

TC : ihl-rat 15 ppm/6H/86W-I

TC : ihl-rat 14 ppm/6H/84W-I

TC : ihl-rat 18750 ug/m3/2Y-I

TC : ihl-mus 15 ppm/6H/104W-I

TC : ihl-rat 15 ppm/6H/2Y-I

TC : ihl-rat 5600 ppb/6H/2Y-I

TC : ihl-rat 14300 ppb/6H/2Y-I

Review: IARC Cancer Review: Animal Sufficient Evidence

IARC Cancer Review: Human Limited Evidence

IARC probable human carcinogen (Group 2A) [015,610]

EPA Carcinogen Assessment Group [610]

ACGIH suspected human carcinogen [015,415,421]

OSHA cancer suspect agent [610]

Status: NTP Fourth Annual Report on Carcinogens, 1984

*MUTATION DATA:

test lowest dose | test lowest dose

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mmo-sat 100 umol/L | mmo-omi 250 ppm

mmo-esc 100 ppm/3H | mmo-omi 1 pph/15M

mmo-srm 5 gm/L | sln-dmg-unr 10 pph/3H-C

dnd-esc 1950 ug/L | oms-rat:oth 100 umol/L

dnd-esc 5 ppm | sln-dmg-orl 250 ppm

mmo-omi 1 pph/5M-C | sln-dmg-par 2000 ppm

mmo-omi 10 ppm | dlt-dmg-orl 1300 ppm

mmo-omi 200 ppm | mmo-nsc 10 mmol/plate

mmo-omi 1000 ppm | mrc-smc 24 mmol/L

sln-asn 20 mg/L | slt-nml-unr 700 ppm

oms-nml:oth 40 mmol/L | oms-nml:oth 25 mmol/L

cyt-nml:oth 40 mmol/L | cyt-grh:oth 750 umol/L

dnd-hmn:fbr 100 umol/L | dnd-hmn:lng 100 umol/L

dnd-hmn:oth 100 umol/L | dns-hmn:hla 10 nmol/L

oms-hmn:lym 10 mg/L | dnd-rat-ihl 35 ug/m3/8W-I

cyt-hmn:lym 10 mg/L | cyt-hmn:fbr 2 mmol/L

sce-hmn:lym 125 umol/L | msc-hmn:lym 130 umol/L

dnd-rat-orl 10 umol/kg | mmo-omi 200 umol/L

cyt-rat-ihl 15 ppm/5D-I | otr-mus:emb 1 mg/L

dnd-mus:leu 125 umol/L | cyt-mus-orl 100 mg/kg

cyt-mus-ipr 15 mg/kg | otr-ham:kdy 4 mg/L

pic-ham:emb 3 uL/L | cyt-ham:lng 18 mg/L

cyt-ham:ovr 200 ug/L | sce-ham:ovr 110 ug/L

dnd-ckn:leu 500 ppm | dnd-mam:lym 500 ppm

dnd-mam:lym 660 mmol/L | mma-sat 100 umol/L

dnd-rat:oth 500 umol/L | dni-esc 5 mmol/L

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dni-hmn:oth 210 umol/L | dni-rat:oth 100 umol/L
oms-hmn:oth 210 umol/L | dns-rat:oth 50 umol/L
msc-mus:lym 74 mg/L | mma-mus:lym 25 mg/L
sln-dmg:ihl 7 ppH/24H | sce-ham:lng 67 umol/L
spm-rat-ori 200 mg/kg | otr-nml:oth 25 mmol/L
otr-nml:oth 25 mmol/L | spm-dom-itt 23 mg/kg

*TERATOGENICITY:

Reproductive Effects Data:

TCLo: ihl-rat 12 ug/m³/24H (15D pre/1-22D preg)
TCLo: ihl-rat 12 ug/m³/24H (1-22D preg)
TCLo: ihl-rat 35 ug/m³/8H (60D male)
TCLo: ihl-rat 1 mg/m³/24H (1-22D preg)
TDLo: ims-mus 259 mg/kg (11D preg)
TDLo: ori-rat 200 mg/kg (1D male)
TCLo: ihl-rat 12 ug/m³/24H (20D pre/1-22D preg)
TCLo: ihl-rat 50 ug/m³/4H (1-19D preg)
TDLo: scu-rat 46243 mg/kg (20D male)
TDLo: itt-rat 400 mg/kg (1D male)
TDLo: ipr-mus 240 mg/kg (7-14D preg)
TDLo: ipr-mus 160 mg/kg (7-14D preg)
TDLo: itt-dog 7 mg/kg (1D male)
TDLo: itt-mky 4 mg/kg (1D male)
TDLo: itt-dom 6667 ug/kg (1D male)
TDLo: ipr-mus 500 mg/kg (5D male)

*STANDARDS, REGULATIONS & RECOMMENDATIONS:

OSHA: Federal Register (1/19/89) and 29 CFR 1910.1000 Subpart Z
Transitional Limit: PEL-TWA 3 ppm; Ceiling Limit 5 ppm; Peak 10 ppm/30M [610]
Final Limit: PEL-TWA 1 ppm; STEL 2 ppm [610]
Action level TWA 0.5 ppm [610]
OSHA irritant and potential cancer hazard [610]
ACGIH: TLV-TWA 1 ppm, STEL 2 ppm, with a notice of intent to change to a Ceiling Limit of 0.3 ppm [610]
NIOSH Criteria Document: Recommended Exposure Limit to this compound-air: Ceiling Limit 0.1 ppm/15M [610]
NFPA Hazard Rating: Health (H): 2
Flammability (F): 4
Reactivity (R): 0
H2: Materials hazardous to health, but areas may be entered freely with full-faced mask self-contained breathing apparatus which provides eye protection (see NFPA for details).
F4: Very flammable gases or very volatile flammable liquids (see NFPA for details).
R0: Materials which are normally stable even under fire exposure conditions and which are not reactive with water (see NFPA for details).

*OTHER TOXICITY DATA:

Skin and Eye Irritation Data:

skn-hmn 150 ug/3D-I MLD
eye-hmn 4 ppm/5M
eye-hmn 1 ppm/6M nse MLD

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skn-rbt 540 mg open MLD
skn-rbt 50 mg/24H MOD
eye-rbt 750 ug SEV
skn-rbt 2 mg/24H SEV
eye-rbt 750 ug/24H SEV
eye-rbt 10 mg SEV
Review: Toxicology Review-3
Standards and Regulations: DOT-Hazard: ORM-A; Label: None
DOT-Hazard: Combustible liquid; Label: None
DOT-IMO: Flammable or Combustible liquid;
Label: Flammable liquid
Status: NIOSH Analytical Methods: see Formaldehyde (oxazolidine), 2502;
(chromotropic acid), 3500
NIOSH Analytical Methods: see Formaldehyde (Girard T), 3501
NIOSH Current Intelligence Bulletin 34, April 1981
EPA TSCA Test Submission (TSCATS) Data Base, June 1988
EPA TSCA Chemical Inventory, 1986
EPA Genetox Program 1988, Positive: D melanogaster-reciprocal
translocation
EPA Genetox Program 1988, Positive: N crassa-reversion; E coli polA
without S9
EPA Genetox Program 1988, Positive: D melanogaster Sex-linked lethal
EPA Genetox Program 1988, Positive: S cerevisiae gene conversion;
S cerevisiae-reversion
EPA Genetox Program 1988, Inconclusive: In vitro UDS-human fibroblast
EPA TSCA Section 8(e) Status Report 8EHQ-1079-0314
Meets criteria for proposed OSHA Medical Records Rule
EPA Genetox Program 1988, Positive: Carcinogenicity-mouse/rat
EPA Genetox Program 1988, Inconclusive: CHO gene mutation
Fatal dose is 60-90 mL [301]

Methanol: *TOXICITY:

typ. dose mode specie amount units other

LDLo orl hmn 340 mg/kg

TCLo ihl hmn 86000 mg/m3

LDLo unr man 868 mg/kg

LD50 orl rat 5628 mg/kg

LC50 ihl rat 64000 ppm/4H

LD50 ipr rat 9540 mg/kg

LD50 orl mus 870 mg/kg

LCLo ihl mus 50 gm/m3/2H

LDLo ipr mus 120 mg/kg

LD50 scu mus 9800 mg/kg

LD50 ivn mus 5673 mg/kg

LDLo orl dog 7500 mg/kg

LDLo orl mky 7000 mg/kg

LCLo ihl mky 1000 ppm

LDLo skn mky 500 mg/kg

LCLo ihl cat 44000 mg/m3/6H

LDLo ivn cat 118 mg/kg

LDLo orl rbt 7500 mg/kg

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LD50 skn rbt 20 gm/kg
LDLo orl man 13 gm/kg

*AQTX/TLM96: >1000 ppm

*SAX TOXICITY EVALUATION:

THR = A skin, eye irritant. A human inhalation IRRITANT. A human eye irritant. HIGH human oral; HIGH intraperitoneal, intravenous; MODERATE inhalation, oral, skin; LOW skin, oral, inhalation, intraperitoneal, subcutaneous. Methyl alcohol possesses distinct narcotic properties. Coma from massive exposures may last as long as 2-4 days.

*CARCINOGENICITY: Not available

*MUTATION DATA:

test lowest dose | test lowest dose

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mno-smc 12 pph | cyt-smc 500 umol/tube
cyt-grh-par 3000 ppm | dni-hmn:lym 300 mmol/L
dnd-rat-oral 10 umol/kg | cyt-mus-oral 1 gm/kg
cyt-mus-ipr 75 mg/kg | mma-mus:lym 7900 mg/L

*TERATOGENICITY:

Reproductive Effects Data:

TDLo: orl-rat 7500 mg/kg (17-19D preg)

TCLo: ihl-rat 20000 ppm/7H (1-22D preg)

TDLo: ipr-mus 5 gm/kg (5D male)

*STANDARDS, REGULATIONS & RECOMMENDATIONS:

OSHA: Federal Register (1/19/89) and 29 CFR 1910.1000 Subpart Z

Transitional Limit: PEL-TWA 200 ppm [610]

Final Limit: PEL-TWA 200 ppm (skin); STEL 250 ppm [610]

ACGIH: TLV-TWA 200 ppm (skin); STEL 250 ppm [610]

NIOSH Criteria Document: Recommended Exposure Limit to this compound-air:

PEL-TWA 200 ppm; Ceiling Limit 800 ppm/15M [610]

NFPA Hazard Rating: Health (H): 1

Flammability (F): 3

Reactivity (R): 0

H1: Materials only slightly hazardous to health (see NFPA for details).

F3: Materials which can be ignited under almost all normal temperature conditions (see NFPA for details).

R0: Materials which are normally stable even under fire exposure conditions and which are not reactive with water (see NFPA for details).

*OTHER TOXICITY DATA:

Skin and Eye Irritation Data:

eye-hmn 5 ppm

skn-rbt 500 mg/24H MOD

eye-rbt 40 mg MOD

Review: Toxicology Review-5

Standards and Regulations: DOT-Hazard: Flammable liquid; Label: Flammable liquid

DOT-IMO: Flammable liquid; Label: Flammable liquid,

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Poison

Status: "NIOSH Manual of Analytical Methods, 3rd Ed."

Reported in EPA TSCA Inventory, 1983

EPA Genetic Toxicology Program, January 1984

EPA TSCA Section 8(e) Status Report 8EHQ-0378-0108

Meets criteria for proposed OSHA Medical Records Rule

Sodium acetate, anhydrous: mouse LD50 oral 6891mg/kg (6891mg/kg) Journal of Industrial Hygiene and Toxicology. Vol. 23, Pg. 78, 1941.

mouse LD50 subcutaneous 3200mg/kg (3200mg/kg) Toxicon. Vol. 24, Pg. 553, 1986.

Link to PubMed

mouse LDLo intravenous 1195mg/kg (1195mg/kg) Journal of Laboratory and Clinical Medicine. Vol. 29, Pg. 809, 1944.

rabbit LD50 skin > 10gm/kg (10000mg/kg) BIOFAX Industrial Bio-Test Laboratories, Inc., Data Sheets. Vol. 19-3/1971,

rabbit LDLo intravenous 1300mg/kg (1300mg/kg) BEHAVIORAL: TOXIC PSYCHOSIS

KIDNEY, URETER, AND BLADDER: URINE VOLUME INCREASED

BEHAVIORAL: FLUID INTAKE Archiv fuer Experimentelle Pathologie und Pharmakologie. Vol. 21, Pg. 119, 1886.

rat LC50 inhalation > 30gm/m3/1H (30000mg/m3) BIOFAX Industrial Bio-Test Laboratories, Inc., Data Sheets. Vol. 19-3/1971,

rat LD50 oral 3530mg/kg (3530mg/kg) FAO Nutrition Meetings Report Series. Vol. 40, Pg. 126, 1967.

SECTION 12: Ecological information

Toxicity

Ecological Information: The following statements refer to individual components of the preparation:

Biological Properties: Toxic for aquatic organisms. Protoplasmatic toxin. Caustic even in diluted form. Disinfectant effect. Toxic effect on fish and plankton. Sludge decomposition impaired or not possible even in diluted concentration. Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities.

Acute Toxicity - Fish: LC50 (P.promelas): 24 mg/l /96 h (Formaldehyde);

LC50 (Br.rerio): 41 mg/l /96 h (Formaldehyde).

Acute Toxicity - Daphnia: Daphnia magna EC50: ~2 mg/l /48 h (Formaldehyde).

Acute Toxicity - Algae: Maximum permissible toxic concentration: Algeal toxicity: Sc.quadricauda IC5: 2.5 mg/l /8 d (Formaldehyde).

Acute Toxicity - Bacteria: Photobacterium phosphoreum EC50: 8.5 mg/l /30 min (Formaldehyde).

Bacterial toxicity: M.aeruginosa EC5: 0.39 mg/l /8 d (Formaldehyde).

Persistence and degradability

Abiotic degradation: Rapid degradation. (air, formaldehyde)

Biologic degradation: Biodegradation: 97.4 % /5 d (Formaldehyde). Readily biodegradable.

COD: 1.06 g/g (Formaldehyde); TOD: 1.068 g/g (Formaldehyde)

Bioaccumulative potential

No bioaccumulation is to be expected (log P(o/w) <1).

Mobility in soil

Distribution: log p(o/w): 0.00 (Formaldehyde).

SECTION 13: Disposal considerations

Disposal methods

Sewage disposal

No bioaccumulation is to be expected (log P(o/w) <1).

SECTION 14: Transport information

ADG (Road and Rail)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: S6

SECTION 16: Other information

Further information/disclaimer

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Preparation information

All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. ChemSupply Australia Pty Ltd accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.

Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)

