Safety Data Sheet Carbol Thionin

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SECTION 1: Identification

GHS Product identifier

Product name	Carbol Thionin

Recommended use of the chemical and restrictions on use

Laboratory and Analytical Reagent

Supplier's details

Name	ChemSupply Australia Pty Ltd
Address	38-50 Bedford Street 5013 Gillman South Australia Australia
Telephone	08 8440 2000
email	www.chemsupply.com

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Germ cell mutagenicity, Cat. 2
- Serious eye damage/eye irritation, Cat. 2A
- Skin corrosion/irritation, Cat. 2

GHS label elements, including precautionary statements

Pictograms

Signal word	**Warning**
Hazard statement(s)	
H303	May be harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H333	May be harmful if inhaled
H341	Suspected of causing genetic defects
Precautionary statement(s)	
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physcian if you feel unwell,
P302+P352	IF ON SKIN: Wash with plenty of water/soap
P304+P312	IF INHALED: Call a POISON CENTER/doctor/physcian if you feel unwell.
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.
P332+P313	If skin irritation 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.
P501	Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

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

Hazardous components

Component	Concentration
PHENOL (CAS no.: 108-95-2; EC no.: 203-632-7; Index no.: 604-001-00-2)	**<= 2 % (weight)**
CLASSIFICATIONS: Germ cell mutagenicity, Cat. 2; Acute toxicity, inhalation, Cat. 3; Acute toxicity, dermal, Cat. 3; Acute toxicity, oral, Cat. 3; Specific target organ toxicity following repeated exposure, Cat. 2; Skin corrosion/irritation, Cat. 1B. HAZARDS: H301 - Toxic if swallowed; H311 - Toxic in contact with skin; H314 - Causes severe skin burns and eye damage; H331 - Toxic if inhaled; H341 - Suspected of causing genetic defects [route]; H373 - May cause damage to organs [organs] through prolonged or repeated exposure [route]. [SCLs/M-factors/ATEs]: *; Skin Corr. 1B; H314: C ≥ 3 %; Skin Irrit. 2; H315: 1 % ≤ C < 3 %; Eye Irrit. 2; H319: 1 % ≤ C < 3 %	
Thionin acetate salt (CAS no.: 78338-22-4)	**< 0.1 % (weight)**
CLASSIFICATIONS: Serious eye damage/eye irritation, Cat. 2A; Skin corrosion/irritation, Cat. 2; Specific target organ toxicity following single exposure, Cat. 3. HAZARDS: H315 - Causes skin irritation; H319 - Causes serious eye irritation; H335 - May cause respiratory irritation.	

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 breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.
In case of eye contact	Continue rinsing eyes during transport to hospital. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	If swallowed, do NOT induce vomiting. Seek medical advice

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
Treat symptomatically based on judgement of doctor and individual reactions of the patient.

SECTION 5: Fire-fighting measures

Suitable extinguishing media
Specific Methods: Small fire: Use dry chemical, CO2, water spray or foam.
Large fire: Use water spray, fog or foam.
If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out.

Specific hazards arising from the chemical
Solutions will not burn or support combustion. Decomposition products include oxides of nitrogen.

Special protective actions for fire-fighters
Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. For personal protection see section 8.

Methods and materials for containment and cleaning up
Do NOT touch or walk through this product. Stop leak if safe to do so. Prevent entry into waterways, drains, confined areas. Prevent dust cloud. Use clean non-sparking tools to collect material and place it into loosely-covered plastic containers for later disposal. Wash area down with excess water.

SECTION 7: Handling and storage

Precautions for safe handling
Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well-ventilated area, out of direct sunlight. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

SECTION 8: Exposure controls/personal protection

Control parameters

CAS: 108-95-2
Phenol
AU/SWA (Australia): 1 ppm; 4 mg/m3 TWA inhalation; NIOSH: 5 ppm, (C) 15.6 ppm [15-min] REL 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
Chemicals.

Hand Protection: Normally not required but if in doubt ensure hand protection should 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.

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	Liquid
Color	Dark blue
Odor	No data available.
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	Acidic
Kinematic viscosity	No data available.
Solubility	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	1.1
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.

Reacts with incompatible materials

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
None under normal use conditions.

Conditions to avoid
Avoid storing in direct sunlight and avoid extremes of temperature.

Incompatible materials
No data available.

Hazardous decomposition products
Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Harmful if swallowed. Ingestion of this product will cause nausea, vomiting, abdominal pain, and chemical burns to the mouth, throat and stomach.

The ATE (dermal) of the mixture is: 2444.44 mg/kg bw
The ATE (vapor inhalation) of the mixture is: 24.44 mg/l
The ATE (oral) of the mixture is: 1111.11 mg/kg bw

Skin corrosion/irritation
Causes skin irritation. May cause an allergic skin reaction. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Serious eye damage/irritation
Causes serious eye irritation. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

Respiratory or skin sensitization
Inhalation of product vapours may cause irritation of nose, throat and respiratory system and possible harmful corrosive effects to the respiratory system. Not expected to be a respiratory or skin sensitiser.

Germ cell mutagenicity
Suspected of causing genetic defects

Carcinogenicity
No data available.

Reproductive toxicity
No data available.

Summary of evaluation of the CMR properties
No data available.

Specific target organ toxicity (STOT) - single exposure
May cause respiratory irritation.

Specific target organ toxicity (STOT) - repeated exposure
No data available.

Aspiration hazard
No data available.

Additional information

PHENOL: *TOXICITY:
typ. dose mode specie amount units other
LDLo orl inf 10 mg/kg
LDLo orl hmn 14 gm/kg
LDLo orl hmn 140 mg/kg
LD50 orl rat 317 mg/kg
LD50 skn rat 669 mg/kg
LD50 orl mus 270 mg/kg
LDLo orl dog 500 mg/kg
LD50 skn rbt 850 mg/kg
LC50 ihl rat 316 mg/m3
LC50 ihl mus 177 mg/m3
LD50 ipr rat 127 mg/kg
LD50 scu rat 460 mg/kg
LD50 ipr mus 180 mg/kg
LD50 scu mus 344 mg/kg
LD50 ivn mus 112 mg/kg
LDLo par dog 2000 mg/kg
LDLo orl cat 80 mg/kg
LDLo scu cat 80 mg/kg
LDLo par cat 500 mg/kg

LDLo orl rbt 420 mg/kg
LC50 ihl mam 74 mg/m3
LDLo ipr rbt 620 mg/kg
LDLo scu rbt 620 mg/kg
LDLo ivn rbt 180 mg/kg
LDLo par rbt 300 mg/kg
LDLo ipr gpg 300 mg/kg
LDLo scu gpg 450 mg/kg
LDLo scu frg 75 mg/kg
LDLo par frg 290 mg/kg
LDLo scu frg 290 mg/kg

*AQTX/TLM96: Not available

*SAX TOXICITY EVALUATION:
THR: Human poison by ingestion. An experimental poison by ingestion, subcutaneous, intravenous, parenteral and intraperitoneal routes. Moderately toxic by skin contact. A severe eye and skin irritant. An experimental carcinogen and neoplastigen. Human mutagenic data. Absorption of phenolic solutions through the skin may be very rapid, and can cause death within 30 minutes to several hours by exposure of as little as 64 square inches of skin. A common air contaminant.

*CARCINOGENICITY:
Tumorigenic Data:
TDLo: skn-mus 16 gm/kg/40W-I
TD : skn-mus 4000 mg/kg/24W-I
Review: IARC Cancer Review: Human Inadequate Evidence
IARC Cancer Review: Animal Inadequate Evidence
IARC: Not classifiable as a human carcinogen (Group 3) [610]
Status: NCI Carcinogenesis Bioassay (Water); Negative: Male and Female Rat, Male and Female Mouse [620]

*MUTATION DATA:
test lowest dose | test lowest dose
---------- ---------- | ---------- ----------
sce-hmn:lym 5 umol/L | mrc-asn 15 umol/L
dnd-mam:lym 250 mmol/L | dni-mus-orl 20 gm/kg
mma-sat 40 umol/plate | dni-hmn:hla 1 mmol/L
cyt-ofs-mul 300 nL/L | oms-hmn:hla 17 mg/L
oms-hmn:lym 5 umol/L | oms-rbt:bmr 250 umol/L
dni-mus:lym 800 umol/L | dns-rat-orl 4 gm/kg
sln-dmg:ovr 100 ppm |

*TERATOGENICITY:
Reproductive Effects Data:
TDLo: ipr-rat 600 mg/kg (12-14D preg)
TDLo: orl-rat 300 mg/kg (6-15D preg)
TDLo: orl-rat 1200 mg/kg (6-15D preg)
TDLo: orl-mus 2300 mg/kg (6-15D preg)
TDLo: orl-mus 2600 mg/kg (6-15D preg)
TDLo: orl-mus 2800 mg/kg (6-15D preg)
TDLo: orl-mus 4 gm/kg (6-15D preg)

*STANDARDS, REGULATIONS & RECOMMENDATIONS:
OSHA: Federal Register (1/19/89) and 29 CFR 1910.1000 Subpart Z
Transitional Limit: PEL-TWA 5 ppm (skin) [610]
Final Limit: PEL-TWA 5 ppm (skin) [610]
ACGIH: TLV-TWA 5 ppm (skin) [015,415,421,610]
NIOSH Criteria Document: Recommended Exposure Limit to this compound-air:
TWA 20 mg/m3; Ceiling Limit 60 mg/m3/15M [015]
NFPA Hazard Rating: Health (H): 3
Flammability (F): 2
Reactivity (R): 0
H3: Materials extremely hazardous to health but areas may be entered
with extreme care (see NFPA for details).
F2: Materials which must be moderately heated before ignition will occur
(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-rbt 500 mg/24H SEV
skn-rbt 535 mg open SEV
eye-rbt 5 mg SEV
eye-rbt 5 mg/30S rns MLD
skn-rbt 100 mg MLD
Review: Toxicology Review-5
Standard and Regulations: DOT-Hazard: Poison B; Label: Poison
DOT-Hazard: Poison B; Label: Poison, liquid
DOT-IMO: Poison B; Label: Poison
Status: EPA Genetox Program 1986, Negative: N crassa-reversion
EPA TSCA Chemical Inventory, 1986
EPA TSCA Test Submission (TSCATS) Data Base, March 1988
NIOSH Analytical Methods: see Phenol, 3502; Phenol and p-Cresol
in urine, 8305
Meets criteria for proposed OSHA Medical Records Rule

SECTION 12: Ecological information

Toxicity
No data available.

Persistence and degradability
No data available.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Results of PBT and vPvB assessment
No data available.

Endocrine disrupting properties
No data available.

Other adverse effects
No data available.

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations
Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

SECTION 15: Regulatory information

SECTION 16: Other information

Further information/disclaimer
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