

# MERCUROUS CHLORIDE

GHS Safety Data Sheet

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## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NAME

MERCUROUS CHLORIDE

### OTHER NAMES

Hg<sub>2</sub>-Cl<sub>2</sub>, Hg-Cl, "dimercury dichloride", "mercury chloride", "mercury subchloride", "mercury monochloride", "mercury protochloride", "C.I. 77764", Calogreen, Calomel, Calotab, Cyclosan

### PROPER SHIPPING NAME

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

### PRODUCT USE

Fungicides, electrodes, pharmaceuticals, pyrotechnics, ceramic painting, maggot control in agriculture and laxatives.

### SUPPLIER

Company: S D FINE- CHEM LIMITED

Address:

315- 317, T.V. INDUSTRIAL ESTATE,  
248, WORLI,

MUMBAI- 400030.INDIA.

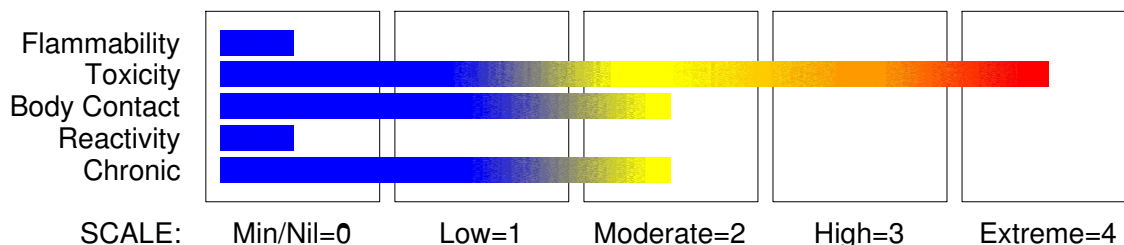
technical@sdfine.com

Telephone: 91- 22- 24959898

Telephone: 91- 22- 24959899

Fax: 91- 22- 24937232

### HAZARD RATINGS



## Section 2 - HAZARDS IDENTIFICATION

### GHS Classification

Acute Toxicity (Dermal) Category 1  
Acute Toxicity (Inhalation) Category 2  
Acute Toxicity (Oral) Category 2  
Chronic Aquatic Hazard Category 1  
Eye Irritation Category 2A

continued...

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## Section 2 - HAZARDS IDENTIFICATION

Organ Damage Category 2  
Reproductive Toxicity Category 2  
Respiratory Irritation Category 3  
Skin Corrosion/Irritation Category 2



## EMERGENCY OVERVIEW

### HAZARD

#### DANGER

Determined by using GHS criteria:

H335 H310 H330 H300 H315 H319 H361 H373 H410

May cause respiratory irritation

Fatal in contact with skin

Fatal if inhaled

Fatal if swallowed

Causes skin irritation

Causes serious eye irritation

Suspected of damaging the unborn child

May cause damage to organs through prolonged or repeated exposure.

Very toxic to aquatic life with long lasting effects

### PRECAUTIONARY STATEMENTS

#### Prevention

Use only outdoors or in a well ventilated area.

Do not breathe dust/fume/gas/mist/vapours/spray.

Obtain special instructions before use.

Do not get in eyes, on skin or on clothing

Wash thoroughly after handling.

Wear respiratory protection.

Wear protective gloves/clothing

Wash hands thoroughly after handling.

Do not handle until all safety precautions have been read and understood.

Use personal protective equipment as required.

Do not eat, drink or smoke when using this product.

#### Response

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

Keep container tightly closed.

If eye irritation persists, get medical advice/attention.

If exposed or concerned: Get medical attention advice.

Wear eye/face protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation occurs, seek medical advice/attention.

Remove/Take off immediately all contaminated clothing

Specific treatment: refer to Label or MSDS.

Get medical advice/attention if you feel unwell.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Wash/Decontaminate removed clothing before reuse.

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## Section 2 - HAZARDS IDENTIFICATION

IF ON SKIN: Gently wash with plenty of soap and water.  
Immediately call a POISON CENTER or doctor/physician.

### Storage

Store locked up.

### Disposal

Dispose of contents and container in accordance with relevant legislation.

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| NAME               | CAS RN     | %     |
|--------------------|------------|-------|
| mercurous chloride | 10112-91-1 | >99.6 |

## Section 4 - FIRST AID MEASURES

### SWALLOWED

For advice, contact a Poisons Information Centre or a doctor.  
· If swallowed and if more than 15 minutes from a hospital induce vomiting.  
· Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.  
· NOTE: DO NOT INDUCE VOMITING in an unconscious person.  
· Always wear protective glove when inducing vomiting by mechanical means.

### EYE

If this product comes in contact with the eyes:  
· Immediately hold eyelids apart and flush the eye continuously with running water.  
· Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.  
· Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.  
· Transport to hospital or doctor without delay.  
· Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

### SKIN

If skin contact occurs:  
· Immediately remove all contaminated clothing, including footwear.  
· Flush skin and hair with running water (and soap if available).  
· Seek medical attention in event of irritation.

### INHALED

· If fumes or combustion products are inhaled remove from contaminated area.  
· Lay patient down. Keep warm and rested.  
· Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.  
· Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.  
· Transport to hospital, or doctor.

### NOTES TO PHYSICIAN

· Moderate adsorption of inorganic mercury compounds through the gastro-intestinal tract (7-15%) is the principal cause of poisoning. These compounds are highly concentrated (as the mercuric (Hg (2+) form) in the kidney; acute ingestion may lead to oliguric renal failure. Severe mucosal necrosis may also result from ingestion.  
· Chronic effects range from proteinuria to nephrotic syndrome. Chronic presentation also

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## Section 4 - FIRST AID MEASURES

involves dermatitis, gingivitis, stomatitis, tremor and neuropsychiatric symptoms of erethism.

- Absorbed inorganic mercury does not significantly cross the blood-brain barrier.
- Emesis and lavage should be initiated following acute ingestion.
- Activated charcoal interrupts absorption; cathartics should be administered when charcoal is given.
- The use of British Anti-Lewisite is indicated in severe inorganic poisoning. Newer derivatives of BAL (e.g. dimercaptosuccinic acid, [DMSA] and 2,3-dimercapto-1-propanesulfate [DMPS]) may prove more effective. [Ellenhorn and Barceloux: Medical Toxicology]

### BIOLOGICAL EXPOSURE INDEX - BEI

These represent the determinants observed in specimens from a healthy worker exposed at the Exposure Standard (ES or TLV).

| Determinant                         | Index               | Sampling Time                   | Comments |
|-------------------------------------|---------------------|---------------------------------|----------|
| 1. Total inorganic mercury in urine | 35 ug/gm creatinine | Preshift                        | B        |
| 2. Total inorganic mercury in blood | 15 ug/L             | End of shift at end of workweek | B        |

B: Background levels occur in specimens collected from subjects NOT exposed.

There are no specific antidotes for chronic poisoning, other than early detection of intoxication and removal from exposure.

Urine mercury determination may be an index of absorption. Generally, 0.1 - 0.5 mg Hg/l of urine is considered significant. [I.L.O. Encyclopedia]

## Section 5 - FIRE FIGHTING MEASURES

### EXTINGUISHING MEDIA

Water spray or fog.

Foam.

- Alcohol stable foam.

Dry chemical powder.

Carbon dioxide.

### FIRE FIGHTING

Alert Fire Brigade and tell them location and nature of hazard.

- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water courses.

Use fire fighting procedures suitable for surrounding area.

Cool fire exposed containers with water spray from a protected location.

DO NOT approach containers suspected to be hot.

If safe to do so, remove containers from path of fire.

Equipment should be thoroughly decontaminated after use.

### FIRE/EXPLOSION HAZARD

- Non combustible.
- Not considered a significant fire risk, however containers may burn.

Decomposes on heating and produces acrid and toxic fumes of:

mercury vapour / mercury metal and hydrogen chloride.

### Personal Protective Equipment

Breathing apparatus.

Gas tight chemical resistant suit.

Limit exposure duration to 1 BA set 30 mins.

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## Section 6 - ACCIDENTAL RELEASE MEASURES

### EMERGENCY PROCEDURES

#### MINOR SPILLS

- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Wear impervious gloves and safety glasses.
- Use dry clean up procedures and avoid generating dust.
- Sweep up or
- Vacuum up (consider explosion-proof machines designed to be grounded during storage and use).
- Place spilled material in clean, dry, sealable, labelled container.

#### MAJOR SPILLS

Moderate hazard.

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- Stop leak if safe to do so.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Neutralise/decontaminate residue.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
- If contamination of drains or waterways occurs, advise emergency services.

### EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

mercurous chloride      10 mg/m<sup>3</sup>

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:

mercurous chloride      0.1 mg/m<sup>3</sup>

other than mild, transient adverse effects without perceiving a clearly defined odour is:

mercurous chloride      0.075 mg/m<sup>3</sup>

The threshold concentration below which most people will experience no appreciable risk of health effects:

mercurous chloride      0.03 mg/m<sup>3</sup>

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

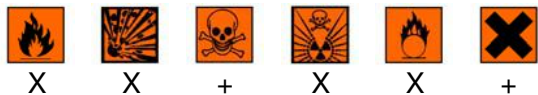
|                 |          |               |         |
|-----------------|----------|---------------|---------|
| Very Toxic (T+) | >= 0.1%  | Toxic (T)     | >= 3.0% |
| R50             | >= 0.25% | Corrosive (C) | >= 5.0% |
| R51             | >= 2.5%  |               |         |
| else            | >= 10%   |               |         |

where percentage is percentage of ingredient found in the mixture

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# MERCUROS CHLORIDE

## SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



+: May be stored together

O: May be stored together with specific preventions

X: Must not be stored together

**Personal Protective Equipment advice is contained in Section 8 of the MSDS.**

## Section 7 - HANDLING AND STORAGE

### PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately. Launder contaminated clothing before re-use.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

### SUITABLE CONTAINER

- Check that containers are clearly labelled.
- Packaging as recommended by manufacturer.
- Glass container.
- Plastic container.
- Plastic drum.
- Polyethylene or polypropylene container.

### STORAGE INCOMPATIBILITY

Segregate from alkalis, bromides, iodides, sulfides, sulfites, peroxides and salts of lead copper and silver.

Mercury(I) chloride is decomposed by solutions of alkali bromides, cyanides or iodides into the mercury(II) salt and metallic mercury.

Alkali chlorides or water act similarly but more slowly. Caustic alkali and alkaline earth solutions blacken the material.

### STORAGE REQUIREMENTS

- Keep dry.
- Store in original containers.
- Keep containers securely sealed.
- No smoking, naked lights or ignition sources.
- Store in a cool, dry, well-ventilated area.

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## Section 7 - HANDLING AND STORAGE

- Store away from incompatible materials.
- Protect containers against physical damage.
- Check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

The following materials had no OELs on our records

- mercurous chloride: CAS:10112- 91- 1 CAS:7546- 30- 7 CAS:39448- 57- 2

### EMERGENCY EXPOSURE LIMITS

| Material           | Revised IDLH Value (mg/m3) | Revised IDLH Value (ppm) |
|--------------------|----------------------------|--------------------------|
| mercurous chloride | 10                         |                          |

### MATERIAL DATA

NOTE: This substance has been classified by the ACGIH as A4 NOT classifiable as a Human Carcinogen.

Some jurisdictions require that health surveillance be conducted on occupationally exposed workers. Such surveillance should emphasise

- demography, occupational and medical history and advice
- physical examination with emphasis on neurological, renal and gastrointestinal systems and skin
- urinary inorganic mercury.

### PERSONAL PROTECTION



#### EYE

- Chemical goggles.
- Full face shield.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

#### HANDS/FEET

- Rubber gloves.
- Impervious gloves.
- PVC gloves.
- Safety footwear.

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Rubber boots.

### OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

### RESPIRATOR

| Protection Factor | Half- Face Respirator | Full- Face Respirator | Powered Air Respirator |
|-------------------|-----------------------|-----------------------|------------------------|
| 10 x ES           | P1 Air- line*         | - -                   | PAPR- P1 -             |
| 50 x ES           | Air- line**           | P2                    | PAPR- P2               |
| 100 x ES          | -                     | P3                    | -                      |
|                   |                       | Air- line*            | -                      |
| 100+ x ES         | -                     | Air- line**           | PAPR- P3               |

\* - Negative pressure demand \*\* - Continuous flow.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.

For further information consult your Occupational Health and Safety Advisor.

### ENGINEERING CONTROLS

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

| Type of Contaminant:                                                                                                                                                                                                | Air Speed:                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| solvent, vapours, degreasing etc., evaporating from tank (in still air).                                                                                                                                            | 0.25- 0.5 m/s (50- 100 f/min)  |
| aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation) | 0.5- 1 m/s (100- 200 f/min.)   |
| direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)                                                      | 1- 2.5 m/s (200- 500 f/min.)   |
| grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).                                                                | 2.5- 10 m/s (500- 2000 f/min.) |

Within each range the appropriate value depends on:

Lower end of the range

1: Room air currents minimal or favourable to capture

2: Contaminants of low toxicity or of nuisance value only.

3: Intermittent, low production.

4: Large hood or large air mass in motion

Upper end of the range

1: Disturbing room air currents

2: Contaminants of high toxicity

3: High production, heavy use

4: Small hood- local control only

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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### APPEARANCE

White crystalline powder; odourless; stable in air but darkens on exposure to light; practically insoluble in water, ether, alcohol and cold dilute acids; decomposed by alkalis. Slowly decomposed by sunlight into mercuric chloride and metallic mercury.

### PHYSICAL PROPERTIES

Solid.

Does not mix with water.

Sinks in water.

Molecular Weight: 472.09

Melting Range (°C): 400 (sublimes.)

Solubility in water (g/L): Immiscible

pH (1% solution): Not applicable.

Volatile Component (%vol): Not available

Relative Vapour Density (air=1): >1

Lower Explosive Limit (%): Not applicable

Autoignition Temp (°C): Not applicable

State: Divided solid

Boiling Range (°C): Not applicable.

Specific Gravity (water=1): 7.15 @ 20C.

pH (as supplied): Not applicable

Vapour Pressure (kPa): Not available.

Evaporation Rate: Not available

Flash Point (°C): Not combustible

Upper Explosive Limit (%): Not applicable

Decomposition Temp (°C): Not available

Viscosity: Not available

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## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

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### CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable under normal handling conditions.
- Prolonged exposure to heat.
- Hazardous polymerisation will not occur.

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## Section 11 - TOXICOLOGICAL INFORMATION

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### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

#### SWALLOWED

Severely toxic effects may result from the accidental ingestion of the material; animal experiments indicate that ingestion of less than 5 gram may be fatal or may produce serious damage to the health of the individual.

continued...

# MERCUROUS CHLORIDE

The material is.

## EYE

Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals.

Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.

## SKIN

Skin contact with the material may produce severely toxic effects; systemic effects may result following absorption and these may be fatal.

Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.

Open cuts, abraded or irritated skin should not be exposed to this material.

Toxic effects may result from skin absorption.

## INHALED

Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system in a substantial number of individuals following inhalation.

The dust may be highly discomforting.

Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

## CHRONIC HEALTH EFFECTS

Principal routes of exposure are by accidental skin and eye contact and inhalation of generated dusts.

In animal tests all forms of mercury have been shown to be teratogenic with mercury ion easily crossing the placental barrier. Chronic exposures in workers may result in excessive salivation (ptyalism), anorexia, digestive disturbances, vague abdominal distress and mild diarrhoea. Renal involvement is rare. Chronic mercurialism manifests itself primarily in neurological effects with the central nervous system the principal target of damage. Tremors involving the hands and fingers and, less often, eyelids, cheeks, tongue and legs, are encountered. Motor control may be impaired resulting in slurred or scanning speech or ataxic gait. Visual and aural disturbance may occur. A common syndrome, described as "erethism," involves behavioral changes such as depression, despondency, and fearfulness. These are often accompanied by insomnia, headache and fatigue. Advanced cases exhibit memory loss, hallucinations and mental deterioration. Other symptoms may include a constant metallic taste and gingivitis of various grades leading to pyorrhea and the loosening of teeth. A dark blue line may occur along the gingival margins and a discolouration of the anterior lens surface (mercurialentis) is considered a useful diagnostic indicator of the chronic condition. Acrodynia ("pink disease") is an uncommon syndrome involving a change in colour of the of the extremities, apathy, anorexia, fever, kidney damage, perspiration, photophobia and insomnia and, most characteristically, pruritic (itchy) scaling of hands and feet.

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## Section 11 - TOXICOLOGICAL INFORMATION

### TOXICITY AND IRRITATION

#### TOXICITY

Oral (rat) LD50: 210 mg/kg

Oral (mouse) LD50: 180 mg/kg

NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.

#### IRRITATION

Nil Reported

Skin (rabbit) LD50: 1500 mg/kg

## Section 12 - ECOLOGICAL INFORMATION

Marine Pollutant: Not Determined

DO NOT discharge into sewer or waterways.

Mercury may occur in the environment as free mercury,  $\text{Hg}(0)$ , mercury ions in salts and complexes,  $\text{Hg}^+$  and  $(\text{Hg}_2)^{2+}$  and as organic mercury compounds. Each species has its own set of physical, chemical and toxicologic properties.

In natural systems a dynamic equilibrium between soil and water mercury occurs determined largely by the physicochemical and biological conditions which pertain. Mercury ion is transported to aquatic ecosystems via surface run-off and from the atmosphere. It is complexed or tightly bound to both inorganic and organic particles, particularly sediments with high sulfur content. Organic acids such as fulvic and humic acids are often associated with mercury not bound to particles. Methyl mercury is produced by sediment micro-organisms, nonbiologically in sediments and by certain species of fish. The methylation of mercury by micro-organisms is the detoxification response that allows the organism to dispose of the heavy metal ions as small organometallic complexes. Methylation occurs only within a narrow pH range in which the micro-organism might exist and the rate of synthesis depends on the redox potential, composition of the microbial population, availability of  $\text{Hg}_2^+$  and temperature. Vitamin B12 derivatives are thought to be the methylating agents, because they are the only methyl carbanion- or methyl radical-donating coenzymes known. In addition it has been demonstrated that the livers of yellow-fin tuna and albacore produce methyl mercury results in its desorption at relatively high rates thus little methyl mercury is found in sediments. Demethylation by sediment micro-organisms also occurs at a rapid rate compared with methylation. The best conversion rate for inorganic mercury to methyl mercury under ideal conditions is less than 1.5% per month. Methyl mercury released into surface waters may also undergo photodecomposition into mercury.

Methyl mercury can be bioaccumulated by planktonic algae and fish. In fish, the rate of absorption of methyl mercury is faster than that of inorganic mercury and the clearance rate is slower resulting in high concentrations of methyl mercury in muscle tissue. The ratio of organic mercury to total mercury is generally high in fish compared with other aquatic organisms. Selenium which is also present in seawater and other seafoods readily complexes with methyl mercury and is thought to have a protective effect against the toxic action of methyl mercury. The danger of methyl mercury poisoning has been illustrated in Minimata, Japan in the late 1950s following industrial release of mercury into the bay which subsequently resulted in at least 1200 cases of poisoning, some fatal.

## Section 13 - DISPOSAL CONSIDERATIONS

Recycle wherever possible.

Consult manufacturer for recycling options.

Consult State Land Waste Management Authority for disposal.

Puncture containers to prevent re-use.

For small quantities:

- Dissolve the material (in water or acid solution as appropriate) or convert it to a water soluble state with appropriate oxidising agent.

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## Section 13 - DISPOSAL CONSIDERATIONS

- Precipitate as the sulfide, adjusting the pH to neutral to complete the precipitation.
- Filter off sulfide solids for recovery or disposal to approved land-fill.
- Destroy excess sulfide in solution with, for example, sodium hypochlorite, neutralise, and flush to sewer (subject to local regulation).

## Section 14 - TRANSPORTATION INFORMATION



Labels Required: MISCELLANEOUS  
HAZCHEM: 2X

### UNDG:

|                                                                   |      |                |      |
|-------------------------------------------------------------------|------|----------------|------|
| Dangerous Goods Class:                                            | 9    | Subrisk:       | None |
| UN Number:                                                        | 3077 | Packing Group: | III  |
| Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |      |                |      |

### Air Transport IATA:

|                                                                   |      |                    |      |
|-------------------------------------------------------------------|------|--------------------|------|
| ICAO/IATA Class:                                                  | 9    | ICAO/IATA Subrisk: | None |
| UN/ID Number:                                                     | 3077 | Packing Group:     | III  |
| ERG Code:                                                         | 9L   |                    |      |
| Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |      |                    |      |

### Maritime Transport IMDG:

|                                                                   |            |                   |                |
|-------------------------------------------------------------------|------------|-------------------|----------------|
| IMDG Class:                                                       | 9          | IMDG Subrisk:     | None           |
| UN Number:                                                        | 3077       | Packing Group:    | III            |
| EMS Number:                                                       | F- A, S- F | Marine Pollutant: | Not Determined |
| Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |            |                   |                |

## Section 15 - REGULATORY INFORMATION

### REGULATIONS

mercurous chloride (CAS: 10112-91-1) is found on the following regulatory lists;  
Great Lakes Binational Toxics Strategy Substances (U.S. and Canada) - Level I Substances  
International Air Transport Association (IATA) Dangerous Goods Regulations  
United Nations List of Prior Informed Consent Chemicals  
United Nations List of Prior Informed Consent Chemicals - French  
United Nations List of Prior Informed Consent Chemicals - Spanish  
WHO Guidelines for Drinking-water Quality - Chemicals for which guideline values have not been established

mercurous chloride (CAS: 7546-30-7) is found on the following regulatory lists;  
Great Lakes Binational Toxics Strategy Substances (U.S. and Canada) - Level I Substances

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## Section 15 - REGULATORY INFORMATION

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United Nations List of Prior Informed Consent Chemicals  
United Nations List of Prior Informed Consent Chemicals - French  
United Nations List of Prior Informed Consent Chemicals - Spanish  
WHO Guidelines for Drinking-water Quality - Chemicals for which guideline values have not been established

No data available for mercurous chloride as CAS: 39448-57-2.

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## Section 16 - OTHER INFORMATION

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### INGREDIENTS WITH MULTIPLE CAS NUMBERS

| Ingredient Name    | CAS                                     |
|--------------------|-----------------------------------------|
| mercurous chloride | 10112- 91- 1, 7546- 30- 7, 39448- 57- 2 |

The above information is believed to be accurate and represent the best information currently available to us, but does not represent any warranty expressed or implied of the properties of the product. User should make their own investigation to determine the suitability of the information for their particular purpose.

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