

PHENYL MERCURY NITRATE

GHS Safety Data Sheet

Version No:2.0

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

PHENYL MERCURIC NITRATE

OTHER NAMES

C6-H5-Hg-NO₃.C6-H6-Hg-O, "mercury, hydroxyphenyl-, mixture with (nitro-O)phenylmercury", "mercury nitratophenyl-, compd. with hydroxyphenylmercury", "mercury, hydroxy(nitro)diphenyl-", "mercury, hydroxyphenyl-, compd. with nitratophenylmercury (1:1)", "merphenyl nitrate", "nitrate phenyl mercurique", "phenmerzyl nitrate", "phenylmercury nitrate", (nitro-O)phenylmercury

PROPER SHIPPING NAME

PHENYLMERCURIC NITRATE

PRODUCT USE

Antibacterial and antifungal used as a preservative for injection solutions, an antiseptic and fungicide to treat tree-wounds. Also used as a spermicidal in chemical contraceptives.

SUPPLIER

Company: S D FINE- CHEM LIMITED

Address:

315- 317, T.V. INDUSTRIAL ESTATE,

248, WORLI,

MUMBAI- 400030.INDIA.

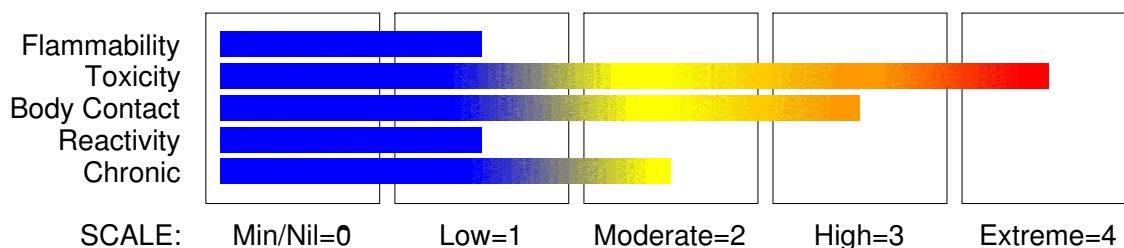
technical@sdfine.com

Telephone: 91- 22- 24959898

Telephone: 91- 22- 24959899

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HAZARD RATINGS



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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
Organ Damage Category 1
Reproductive Toxicity Category 2
Skin Corrosion/Irritation Category 1C



EMERGENCY OVERVIEW

HAZARD

DANGER

Determined by using GHS criteria:

H310 H330 H300 H361 H372 H373 H314 H410

Fatal in contact with skin

Fatal if inhaled

Fatal if swallowed

Suspected of damaging the unborn child

Causes damage to organs through prolonged or repeated exposure.

May cause damage to organs through prolonged or repeated exposure.

Causes severe skin burns and eye damage

Very toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENTS

Prevention

Use only outdoors or in a well ventilated area.

Wear respiratory protection.

Wash hands thoroughly after handling.

Do not breathe dust or mist.

Wear protective gloves/clothing

Wear protective gloves/clothing and eye/face protection.

Wash thoroughly after handling.

Do not get in eyes, on skin or on clothing

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

Obtain special instructions before use.

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

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.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

If exposed or concerned: Get medical attention advice.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

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Section 2 - HAZARDS IDENTIFICATION

present and easy to do. Continue rinsing.
Keep container tightly closed.
Wash contaminated clothing before reuse.
Get medical advice/attention if you feel unwell.
Remove/Take off immediately all contaminated clothing
If on skin or hair: remove/take off immediately all contaminated clothing. Rinse with water/shower.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
Specific treatment: refer to Label or MSDS.
Immediately call a POISON CENTER or doctor/physician.
Wash/Decontaminate removed clothing before reuse.
IF ON SKIN: Gently wash with plenty of soap and water.

Storage

Store locked up.

Disposal

Dispose of contents and container in accordance with relevant legislation.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
phenylmercuric nitrate, basic	8003-05-2	> 99

Section 4 - FIRST AID MEASURES

SWALLOWED

For advice, contact a Poisons Information Centre or a doctor.
· IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.
· For advice, contact a Poisons Information Centre or a doctor.
Where Medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise:
· Induce vomiting with fingers down the back of the of the throat, ONLY IF CONSCIOUS.
· Lean patient forward or place on left side (head-down position if possible) to maintain open airway and prevent aspiration.
NOTE: Wear a protective glove when inducing vomiting by mechanical means.
· In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition.
· If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the MSDS should be provided.
Further action will be the responsibility of the medical specialist.
· If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the MSDS.

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.

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Section 4 - FIRST AID MEASURES

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, without delay.

NOTES TO PHYSICIAN

For acute and short term repeated exposures to aryl and alkylmethoxy compounds of mercury : Absorption proceeds more rapidly than its inorganic counterpart but once inside the body biotransformation releases inorganic mercury. [Ellenhorn and Barceloux: Medical Toxicology].

· 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 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.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Water spray or fog.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

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Section 5 - FIRE FIGHTING MEASURES

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 course.
- Use fire fighting procedures suitable for surrounding area.
- Do not approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

- Combustible.
- Slight fire hazard when exposed to heat or flame.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- On combustion, may emit toxic fumes of carbon monoxide (CO).
- May emit acrid smoke.
- Mists containing combustible materials may be explosive.

Decomposes on heating and produces toxic fumes of: mercury vapour / mercury metal and nitrogen oxides (NOx).

FIRE INCOMPATIBILITY

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

Personal Protective Equipment

Breathing apparatus.
Gas tight chemical resistant suit.
Limit exposure duration to 1 BA set 30 mins.

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Control personal contact by using protective equipment.
- Use dry clean up procedures and avoid generating dust.
- Place in a suitable labelled container for waste disposal.

MAJOR SPILLS

Environmental hazard - contain spillage.

Clear area of personnel and move upwind.

- 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 course.
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Water spray or fog may be used to disperse / absorb vapour.
- Contain or absorb spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- 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.

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Section 6 - ACCIDENTAL RELEASE MEASURES

- If contamination of drains or waterways occurs, advise emergency services.

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



- +: May be stored together
O: May be stored together with specific precautions
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 overexposure 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 smoking, naked lights or ignition sources.
- When handling, DO NOT eat, drink or smoke.
- Avoid contact with incompatible materials.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Working clothes should be laundered separately. Launder contaminated clothing before re-use.
- Use good occupational work practice.
- Observe manufacturer's storing/handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER

- Glass container.
Plastic container.
Multi-ply woven plastic or paper bag with sealed plastic liner
NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse.
- Metal can or drum
 - Packaging as recommended by manufacturer.
 - Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

- Avoid reaction with oxidising agents, bases and strong reducing agents.
Avoid strong acids.
Corrosive to aluminium, zinc, brass, gold and copper.

STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- No smoking, naked lights or ignition sources.

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Section 7 - HANDLING AND STORAGE

- Store in a cool, dry, well-ventilated area.
 - Store away from incompatible materials and foodstuff containers.
 - Protect containers against physical damage and check regularly for leaks.
 - Observe manufacturer's storing and handling recommendations.
- DO NOT use aluminium or galvanised containers.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

The following materials had no OELs on our records

- phenylmercuric nitrate, basic: CAS:8003- 05- 2

EMERGENCY EXPOSURE LIMITS

Material	Revised IDLH Value (mg/m3)	Revised IDLH Value (ppm)
phenylmercuric nitrate, basic	10	

MATERIAL DATA

Exposure limits with "skin" notation indicate that vapour and liquid may be absorbed through intact skin. Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation. Contact with eyes and mucous membranes may also contribute to overall exposure and may also invalidate the exposure standard.

PERSONAL PROTECTION



EYE

- Safety glasses with side shields.
- Chemical goggles.
- Full face shield may be required for supplementary but never for primary protection of eyes
- 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

Wear chemical protective gloves, eg. PVC.
Wear safety footwear.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

OTHER

- Overalls.
- PVC Apron.
- PVC protective suit may be required if exposure severe.
- Eyewash unit.
- Ensure there is ready access to a safety shower.

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

Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection.

An approved self contained breathing apparatus (SCBA) may be required in some situations.

Provide adequate ventilation in warehouse or closed storage area. 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.

Upper end of the range

1: Disturbing room air currents

2: Contaminants of high toxicity

3: High production, heavy use

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

4: Large hood or large air mass in motion

4: Small hood- local control only

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.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

White to cream crystalline powder; does not mix well with water (1:1250).

PHYSICAL PROPERTIES

Solid.

Does not mix with water.

Sinks in water.

Molecular Weight: 634.45

Melting Range (°C): 187- 190

Solubility in water (g/L): Immiscible

pH (1% solution): Not applicable

Volatile Component (%vol): Not available

Relative Vapour Density (air=1): Not available.

Lower Explosive Limit (%): Not applicable

Autoignition Temp (°C): Not available.

State: Divided solid

Boiling Range (°C): Not available.

Specific Gravity (water=1): 2.50 approx.

pH (as supplied): Not applicable

Vapour Pressure (kPa): Not available.

Evaporation Rate: Not available

Flash Point (°C): Not applicable

Upper Explosive Limit (%): Not applicable

Decomposition Temp (°C): Not available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

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.

The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion.

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Section 11 - TOXICOLOGICAL INFORMATION

Considered an unlikely route of entry in commercial/industrial environments. Symptoms of ingestion within the first few minutes may include pain, profuse vomiting and severe purging and the victim may die within a few hours from peripheral vascular collapse secondary to fluid and electrolyte loss. Primary gastroenteritis may subside spontaneously within a few days but severe haemorrhagic inflammation of the colon (colitis) has occurred as late as 9 days following ingestion. A second phase developing over 1-3 days is characterised by stomatitis (lesions of the mouth parts), membranous colitis and kidney damage (tubular nephritis). This second phase is associated with a slow and prolonged excretion of mercury by salivary glands, the gastrointestinal mucosa and kidneys. Death in this phase usually occurs as a result of kidney failure.

The alimentary effects of many mercury compounds are so rapid that the course and outlook is largely determined by events within the first 5-10 minutes. Acute systemic mercurialism may be lethal within a few minutes or death may be delayed for 5-12 days. The ionisable salts are corrosive and tissue damage occurs almost immediately in the mouth, throat and oesophagus.

EYE

The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating.

When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation.

SKIN

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

The material can produce chemical burns following direct contact with the skin.

Toxic effects may result from skin absorption.

Exposure limits with "skin" notation indicate that vapour and liquid may be absorbed through intact skin. Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation. Contact with eyes and mucous membranes may also contribute to overall exposure and may also invalidate the exposure standard.

INHALED

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

CHRONIC HEALTH EFFECTS

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

Symptoms of chronic toxicity include psychic and emotional disturbances (excitability, anxiety, depression, indecision, insomnia), nervous system effects (muscular tremors, incoordination), gingivitis, stomatitis and kidney damage.

[Genium]

Sensitisation may occur.

Chronic effects include kidney and liver damage.

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

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Section 11 - TOXICOLOGICAL INFORMATION

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.

TOXICITY AND IRRITATION

TOXICITY

Subcutaneous (rat) LD50: 56 mg/kg

Intravenous (mouse) LD50: 27 mg/kg

IRRITATION

Nil Reported

Section 12 - ECOLOGICAL INFORMATION

Marine Pollutant:Extreme

Mercury may occur in the environment as free mercury, $\text{Hg}(0)$, mercury ions in salts and complexes, 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 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. The nitrates are of environmental concern because of their high water solubility and consequent leaching, diffusion, and environmental mobility in soil and water. Nitrate can contaminate groundwater to unacceptable levels. Nitrite is formed from nitrate or ammonium ion by micro-organisms in soil, water, sewage and the alimentary tract. The concern with nitrate in the environment is related to its conversion to nitrite.

Methaemoglobinaemia is caused following exposure to high levels of nitrite and produces difficulties in oxygen transport in the blood. Thousands of cases involving poisoning of infants, particularly in rural areas, have been reported as a result of drinking nitrate

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Section 12 - ECOLOGICAL INFORMATION

rich well-water.

Other concerns deriving from exposure to environmental nitrates relate to the production of nitrosamines following the reaction of food nitrites and secondary amines. Other nitroso-compounds may result following reaction with nitrites and amides, ureas, carbamates and other nitrogenous compounds. Nitrosamines produce liver damage, haemorrhagic lung lesions, convulsions and coma in rats, and teratogenic effects in experimental animals.

The N-nitroso class of compounds include potent carcinogens and mutagens: induction of tumors by single doses of N-nitroso compounds testify to this.

Section 13 - DISPOSAL CONSIDERATIONS

- Consult manufacturer for recycling options and recycle where possible .
- Consult State Land Waste Management Authority for disposal.
- Incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: TOXIC
HAZCHEM: 2X

UNDG:

Dangerous Goods Class:	6.1	Subrisk:	None
UN Number:	1895	Packing Group:	II
Shipping Name: PHENYLMERCURIC NITRATE			

Air Transport IATA:

ICAO/IATA Class:	6.1	ICAO/IATA Subrisk:	None
UN/ID Number:	1895	Packing Group:	II
ERG Code:	6L		
Shipping name: PHENYLMERCURIC NITRATE			

Maritime Transport IMDG:

IMDG Class:	6.1	IMDG Subrisk:	None
UN Number:	1895	Packing Group:	II
EMS Number:	F- A, S- A	Marine Pollutant:	Extreme
Shipping name: PHENYLMERCURIC NITRATE			

Section 15 - REGULATORY INFORMATION

REGULATIONS

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Section 15 - REGULATORY INFORMATION

phenylmercuric nitrate, basic (CAS: 8003-05-2) is found on the following regulatory lists

;

Great Lakes Binational Toxics Strategy Substances (U.S. and Canada) - Level I Substances

United Nations List of Prior Informed Consent Chemicals - Spanish

Section 16 - OTHER INFORMATION

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.

Issue Date: 20-Apr-2018