

MATERIAL SAFETY DATA SHEET OF

CYANAMIDE 50% SL

1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Supplier: Shanghai Bosman Industrial Co., Ltd

Street address: No. 1611, North Sichuan Road, Hongkou, Shanghai R.P. China

Tel: + 86 21 63065878

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Product name: Cyanamide 50% SL

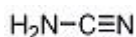
2. COMPOSITION/INFORMATION ON INGREDIENTS

Formulation Type: Soluble liquid (SL)

Active Ingredients: Cyanamide

Chemical Abstracts name: cyanamide

Structural Formula:



Composition:

INGREDIENT	CAS NO	PROPORTION
Cyanamide	420-04-2	50% min.
other	Not available	Balance

Other ingredients determined not to be hazardous

3. HAZARDS IDENTIFICATION

Hazards classifications: 8 other corrosions, Subclass: 6.1 toxic.

The way of hazarding: Inhale, swallow, skin contact.

Potential health effects: May cause strong irritation to mucous membrane in eyes and some body parts like eyes. Cyanamid can irritate people's skin like caustic alkali. After four or five days, some eczema dermatitis that will cause both large reaction and a lot of pain will appear on ordinary skin.

Targeting organs No record

Eyes Liquid may cause strong irritation, and may cause serious eyes inflammation.

Skin May cause serious irritation, and may cause injury to skin.

Ingestion May cause digestive system inflammation if ingest it.

Inhalation Liquid may cause strong irritation for respirator system.

Chronic No record.

Hazards in environment. No record

The risk of explosion May cause explosion if met fire or the temperature exceed melting point, and polymerize with alkali and cyanide, which produce a lot of heat.

4. FIRST AID MEASURES

Inhalation Remove affected person to fresh air until recovered. If breathing is difficult, oxygen may be given by a trained person. If symptoms develop or persist, seek medical advice.

Ingestion Give a glass of water. If vomiting occurs, give more water to drink to assist dilution. If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre. Make every effort to prevent vomit from entering the lungs by careful placement of the patient.

If on skin If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water.

Remove contaminated clothing and launder before re-use.

If in eye If irritation persists, seek medical advice. If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice if irritation develops or persists. If poisoning occurs, contact a doctor or the Poisons Information Centre

First Aid Facilities Possible symptoms of exposure include: erythema, headache, nausea, increased pulse, feeling of burning, reduced blood pressure and rapid heart beat. Irritation of skin and mucous membranes, and after large amounts, circulatory depression up to unconsciousness are possible.

CAUTION: Alcohol (ethanol) interacts with cyanamide. Symptoms showing flush (difficulty in breathing and a bright red face) are possible. These symptoms disappear rapidly and are generally harmless.

CYANAMIDE EXPOSURE: If small amounts have been taken, administer activated charcoal, sodium sulphate and large amounts of liquid orally. If large amounts have been taken, monitor circulatory functions and if necessary, irrigate the stomach preventing aspiration and taking into account possible irritation to mucous membranes. In case of skin irritation, use Corticoid containing external preparations.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media Water fog, foam, carbon dioxide or dry chemical.

Hazards Products from Combustion If involved in a fire, it will emit ammonia, carbon oxides, nitrogen

oxides and possibly hydrocyanic acid.

Special Protective Equipment for fire fighters Breathable air apparatus should be worn when fighting a fire in which cyanamide is involved.

Hazchem Code 2X

Emergency Action in case of Fire If exposed to fire, keep container cool by spraying with water.

Properties on Heating & in case of Fire Violent exothermic reactions above 40°C.

Other Information STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

6. ACCIDENT RELEASE MEASURES

Personal precautions Use personal protective equipment. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation

Environmental precautions: Try to prevent the material entering drains or water sources.

Methods for cleaning up: Absorb with liquid-binding materials. For example, saw dust, sand, or any inert material. Sweep or shovel into suitable containers with lids for disposal. Any waste must be removed according to local authority regulations. Then flush the site with water.

7. HANDLING AND STORAGE

Safe handling: Do not consume alcoholic beverages during the handling of cyanamide. Use protective clothing. Wash thoroughly after handling. Remove contaminated clothing and wash before reusing. Use adequate ventilation. Avoid direct contact with eyes, skin and clothing. Avoid ingestion and inhalation. Wear full face mask and eye protection. Handle in accordance with good industrial hygiene and safety practice.

Storage: Keep in original container only and keep closed when not in use. Suitable materials for storage: polypropylene, polyethylene, enamel, and stainless steel. Keep out of the reach of children. Storage capability is limited; dependent on stabilization. Incompatible with acids and bases. Keep away from food, drink and animal feed. Protect from direct sunlight. Store in a cool, dry, well-ventilated area and keep away from incompatible substances. Do not freeze.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits: Cyanamide: 2 mg/m³ (TWA, OSHA/ACGIH)

Monopotassium phosphate: 1 mg/m³ (TWA, OSHA/ACGIH)

Engineering control: Facilities storing or utilizing this material should be equipped with an eyewash

facility and a safety shower. Use adequate ventilation.

Personal Protection Respirators: Use NIOSH-approved respirator in accordance with health/safety regulations.

Eye protection: Avoid contact with eyes. Wear tightly fitting protective chemical splash goggles and face shield or approved equivalent.

Skin and body protection: Wear appropriate chemical resistant overalls and rubber boots and rubber gloves. Avoid any skin exposure.

Hand protection: Wear nitrile rubber gloves. Material thickness 0.7 mm. Change protective gloves regularly.

Hygiene measures: No smoking, eating or drinking during handling. Change to clean clothes after washing and wash contaminated clothing before re-use. Wash hands before breaks and immediately after handling the product. Avoid alcoholic beverages 24 hours before, during and after handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid.

Color: Colorless to light yellow

Odor: NA

PH: 4.0-6.0

Boiling point: NA

Melting/freezing point: NA

Density: NA

Solubility: Soluble in water

10. STABILITY AND REACTIVITY

Chemical Stability: Unstable at normal temperatures, stable under 10°C

Assortment to Avoid: Strong oxidizing agents, strong returning agents, acid, nitrate.

Condition to Avoid: Avoid overheat(under 30°C).

Decomposition Products: Hydrogen cyanide, Nitrogen Oxides, Carbon Monoxide, Carbon Dioxide, Cyanide Fumes, Ammonia.

Hazardous Polymerization: Produce heat when polymer Dicyandiamide

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral Acute oral LD50 for rats 223 mg/kg (c. 300 mg/kg for 'Alzodef', 49% aqueous solution). Skin and eye Acute percutaneous LD50 for rabbits 848 mg/kg (c. 1700 mg/kg for 'Alzodef'). Severe skin and eye irritant. Inhalation LC50 (4 h) for rats >1 mg/l air (>13 mg/l air for 'Alzodef').

Chronic toxicity

NOEL (91 w) 1 mg/kg daily.

Other

A vasomotor reaction may occur when handling or using cyanamide combined with alcohol consumption.

12. ECOLOGICAL INFORMATION

Birds Oral LD50 for bobwhite quail 350 mg/kg. Dietary LC50 (5 d) for bobwhite quail and mallard ducks >5000 ppm.

Fish Toxic to fish; LC50 (96 h) for bluegill sunfish 44, carp 87, rainbow trout 90 mg/l.

Daphnia LC50 (48 h) 3.2 mg/l.

Algae EC50 (96 h) for *Selenastrum capricornutum* 13.5 mg/l.

Bees Toxic to bees.

Other beneficial spp. EC10 (16 h) for *Pseudomonas putida* 24 mg/l.

13. DISPOSAL CONSIDERATION

Waste disposal methods: Waste and empty containers must be disposed of in accordance with federal, state, and local regulations and laws.

Container disposal: Triple rinse then offer for recycling or proper disposal in a sanitary landfill. Do not reuse empty containers. Incineration is the preferred disposal method.

14. TRANSPORT INFORMATION

UN number: 2992

Proper Shipping Name: Corrosive liquid, Toxic, N.O.S. (Cyanamide, phosphoric acid)

Class: 8, 6.1

Packaging group: II

Marine pollutant: Yes

Packing way: In 5/10/20/200 liters plastic drum, or in 20' ft ISO tank.



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Note of transport: Keep the product at 0-10°C. Keep away from heat and light.

15. REGULATORY INFORMATION

Follow local laws and regulations.

16. OTHER INFORMATION

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of the how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact the company.

END OF MSDS