

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

| Product Name: | DSP 634A-E |
|--|---|
| Other name(s): | DSP 634A; DSP 634B; DSP 634C; DSP 634D; DSP 634E. |
| Recommended Use of the Chemical and Restrictions on Use | Mineral flotation collector. An effective collector for gold, silver, copper and zinc sulfide ores. It displays weak collective power to pyrite in alkaline circuit and has little frothing property. |
| Supplier: ABN: Street Address: | Ixom Operations Pty Ltd 51 600 546 512 Level 8, 1 Nicholson Street East Melbourne Victoria 3002 Australia |
| Telephone Number: Emergency Telephone: | +61 3 9906 3000 1 800 033 111 (ALL HOURS) |

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:

Skin Corrosion - Sub-category 1B Eye Damage - Category 1

SIGNAL WORD: DANGER



Hazard Statement(s): H314 Causes severe skin burns and eye damage.

Precautionary Statement(s):

Prevention:

P260 Do not breathe mist, vapours, spray. P264 Wash hands thoroughly after handling. P280 Wear protective gloves / protective clothing / eye protection / face protection.

Response:

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/shower. P321 Specific treatment (see First Aid Measures on Safety Data Sheet). P363 Wash contaminated clothing before re-use. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 Immediately call a POISON CENTER or doctor/physician. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Product Name: DSP 634A-E Issued: 11/02/2020

Product Name: DSP 634A-E Substance No: 000000017275

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national, international regulations.

Other Hazards:

AUH032 Contact with acids liberates very toxic gas.

Poisons Schedule (SUSMP): None allocated.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

| Components | CAS Number | Proportion | Hazard Codes |
|---|------------|------------|--------------|
| Phosphorodithioic acid, | 53378-51-1 | 30-60% | H314 |
| O,O-bis(2-methylpropyl)ester, sodium salt | | | |
| Phosphorothioic acid, O,O-bis(2-methylpropyl)ester, sodium salt | 53378-52-2 | 4-<30% | H314 |
| Other component(s) | - | to 100% | - |

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

Skin Contact:

If spilt on large areas of skin or hair, immediately drench with running water and remove clothing. Continue to wash skin and hair with plenty of water (and soap if material is insoluble) until advised to stop by the Poisons Information Centre or a doctor.

Eye Contact:

Immediately wash in and around the eye area with large amounts of water for at least 15 minutes. Eyelids to be held apart. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport promptly to hospital or medical centre.

Ingestion:

Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Never give anything by the mouth to an unconscious patient. Seek immediate medical assistance.

Indication of immediate medical attention and special treatment needed:

Treat symptomatically. Can cause corneal burns.

5. FIRE FIGHTING MEASURES

ІХОП



Suitable Extinguishing Media:

Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

Hazchem or Emergency Action Code: 2X

Specific hazards arising from the chemical:

Non-combustible material. Corrosive substance.

Special protective equipment and precautions for fire-fighters:

Decomposes on heating emitting toxic fumes, including those of sulfur dioxide, and oxides of phosphorus. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:

Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Wear protective equipment to prevent skin and eye contact. Avoid breathing in vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid skin and eye contact and breathing in vapour, mists and aerosols.

Conditions for safe storage, including any incompatibilities:

Store in a cool, dry, well ventilated place. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: No value assigned for this specific material by Safe Work Australia.

Appropriate engineering controls:

Use in well ventilated areas. Keep containers closed when not in use.

Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, CHEMICAL GOGGLES, FACE SHIELD, GLOVES (Long), APRON, RUBBER BOOTS.





Wear overalls, chemical goggles, face shield, elbow-length impervious gloves, splash apron or equivalent chemical impervious outer garment, and rubber boots. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

If determined by a risk assessment an inhalation risk exists, wear an organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical state: | Liquid |
|----------------------------------|----------------------|
| Colour: | Amber - Brown |
| Odour: | Sulfur |
| Solubility: | Miscible with water. |
| Specific Gravity: | 1.105 @25°C |
| Relative Vapour Density (air=1): | Not available |
| Vapour Pressure (20 °C): | Not available |
| Flash Point (°C): | Not applicable |
| Flammability Limits (%): | Not applicable |
| Autoignition Temperature (°C): | Not applicable |
| Boiling Point/Range (°C): | Not available |
| pH: | 10-13 |

10. STABILITY AND REACTIVITY

| Reactivity: | Reacts with mineral acids. |
|-------------------------------------|--|
| Chemical stability: | Stable. |
| Possibility of hazardous reactions: | Reacts with mineral acids evolving flammable and toxic hydrogen sulfide gas. |
| Conditions to avoid: | Avoid exposure to heat, sources of ignition, and open flame. |
| Incompatible materials: | Incompatible with strong oxidising agents, mineral acids. |
| Hazardous decomposition products: | Oxides of sulfur. Oxides of phosphorus. Oxides of carbon. Hydrogen sulfide. |

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

| Ingestion: | Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract. |
|-----------------|---|
| Eye contact: | A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury. |
| Skin contact: | Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns. |
| Inhalation: | Breathing in vapour may produce respiratory irritation. |
| Acute toxicity: | |

Product Name: DSP 634A-E



Oral LD50 (rat): >2000 mg/kg Dermal LD50 (rabbit): >2000 mg/kg

| Skin corrosion/irritation: | Corrosive. The product has not been tested; the classification is based on the components of the mixture. |
|------------------------------------|---|
| Serious eye damage/irritation: | Corrosive. The product has not been tested; the classification is based on the components of the mixture. |
| Respiratory or skin sensitisation: | No information available. |
| | |

Chronic effects: No information available for the product.

Aspiration hazard: No information available.

This product may liberate carbon disulfide on contact with moist skin. Chronic exposure to carbon disulfide may produce central and peripheral nervous system, cardiovascular, gastrointestinal, kidney, and eye disorders.

12. ECOLOGICAL INFORMATION

| Ecotoxicity | Avoid contaminating waterways. |
|--|--|
| Persistence/degradability: | The material is not readily biodegradable. |
| Bioaccumulative potential: | No information available. |
| Mobility in soil: | No information available. |
| 48hr EC50 (Daphnia magna): 96hr LC50 (rainbow trout): | 132 mg/L >125 mg/L |

13. DISPOSAL CONSIDERATIONS

Disposal methods:

Refer to Waste Management Authority. Dispose of contents and container in accordance with local, regional, national, international regulations.

14. TRANSPORT INFORMATION

Road and Rail Transport

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.



UN No: Transport Hazard Class: Packing Group: Proper Shipping Name or Technical Name:

Hazchem or Emergency Action 2X Code:

3267 8 Corrosive II CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (CONTAINS PHOSPHORODITHIOIC ACID, O,O-BIS(2-METHYLPROPYL)ESTER, SODIUM SALT)



Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

| UN No: Transport Hazard Class: Packing Group: Proper Shipping Name or Technical Name: | 3267 8 Corrosive II CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (CONTAINS PHOSPHORODITHIOIC ACID, O,O-BIS(2-METHYLPROPYL)ESTER, SODIUM SALT) |
|---|--|
| IMDG EMS Fire: | F-A |
| IMDG EMS Spill: | S-B |

Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

| UN No: | 3267 |
|-------------------------|--|
| Transport Hazard Class: | 8 Corrosive |
| Packing Group: | |
| Proper Shipping Name or | CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (CONTAINS |
| Technical Name: | PHOSPHORODITHIOIC ACID, O,O-BIS(2-METHYLPROPYL)ESTER, SODIUM |
| | SALT) |

15. REGULATORY INFORMATION

Classification:

This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:

Skin Corrosion - Sub-category 1B Eye Damage - Category 1

Hazard Statement(s):

H314 Causes severe skin burns and eye damage.

Poisons Schedule (SUSMP): None allocated.

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Reason(s) for Issue:

5 Yearly Revised Primary SDS



This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.