Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

METALIUM XDP 2000

PRODUCT USE

Used according to manufacturer's directions.

SUPPLIER

Company: Excision Address: 35 Peck St Hamilton VIC 3300 Australia Telephone: 03 55514555 Emergency Tel: 0437 307 003 Daniel Thomas

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

| RISK Risk Codes R36 | Risk Phrases • Irritating to eyes. |
|----------------------------------|--|
| SAFETY | |
| Safety Codes | Safety Phrases |
| S25 | Avoid contact with eyes. |
| S39 | Wear eye/face protection. |
| S40 | To clean the floor and all objects contaminated by this material, use water. |
| S26 | In case of contact with eyes, rinse with plenty of water and contact Doctor or |
| | Poisons Information Centre. |
| S46 | If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (show |
| | this container or label). |

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| NAME | CAS RN | % | |
|-------------------------------------|------------|-----|--|
| tall oil fatty acids diethanolamide | 68155-20-4 | <10 | |
| 4, 4' - methylenedimorpholine | 5625-90-1 | <10 | |
| diethanolamine | 111-42-2 | <10 | |
| water | 7732-18-5 | >50 | |

Section 4 - FIRST AID MEASURES

SWALLOWED

• If swallowed do NOT induce vomiting.

• If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and

- prevent aspiration.
- Observe the patient carefully.

• Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.

EYE

- If this product comes in contact with the eyes:
- Wash out immediately with fresh 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.

- Seek medical attention without delay; if pain persists or recurs seek medical attention.
- 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, aerosols or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

NOTES TO PHYSICIAN

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

• The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas.

Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances.

In such an event consider:

• foam.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves in the event of a fire.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.

FIRE/EXPLOSION HAZARD

- The material is not readily combustible under normal conditions.
- However, it will break down under fire conditions and the organic component may burn.
- Not considered to be a significant fire risk.
- · Heat may cause expansion or decomposition with violent rupture of containers.

Decomposes on heating and produces toxic fumes of: carbon dioxide (CO2), nitrogen oxides (NOx), other pyrolysis products typical of burning organic material.

FIRE INCOMPATIBILITY

None known.

HAZCHEM

None

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact with the substance, by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.

MAJOR SPILLS

- Minor hazard.
- Clear area of personnel.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact with the substance, by using protective equipment as required.
- Prevent spillage from entering drains or water ways.

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- DO NOT allow clothing wet with material to stay in contact with skin.
- · Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- When handling DO NOT eat, drink or smoke.

SUITABLE CONTAINER

- Polyethylene or polypropylene container.
- · Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

- Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.
- Avoid contact with copper, aluminium and their alloys.

STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

| EXPOSURE CONTROLS Source | Material | TWA ppm | TWA mg/m³ |
|--|---|--|-----------|
| Australia Exposure Standards | Metalium XDP 2000 (Diethanolamine (h)) | 3 | 13 |
| The following materials had no OELs on our records tall oil fatty acids diethanolamide: 4, 4' - methylenedimorpholine: water: | | CAS:68155- 20- 4 CAS:5625- 90- 1 CAS:7732- 18- 5 | |
| MATERIAL DATA DIETHANOLAMINE: TALL OIL FATTY ACIDS DIETHANOLAMIN for diethanolamine: Odour Threshold: 2.6 ppm The TLV-TWA is thought to be protective | | eye damage and skin irritation. | |

Odour Safety Factor (OSF) OSF=1.7 (DIETHANOLAMINE).

METALIUM XDP 2000:

None assigned.

WATER:

No exposure limits set by NOHSC or ACGIH.

PERSONAL PROTECTION

RESPIRATOR

•Type AEK-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

EYE

- Safety glasses with side shields.
- Chemical goggles.

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], [AS/NZS 1336 or national equivalent].

HANDS/FEET

• Wear chemical protective gloves, e.g. PVC.

• Wear safety footwear or safety gumboots, e.g. Rubber.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

OTHER

Overalls.

- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.

ENGINEERING CONTROLS

• Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Pale brown liquid; mixes with water.

PHYSICAL PROPERTIES

Liquid. Mixes with water.

| State | Liquid | Molecular Weight | Not Applicable |
|---------------------------|----------------|------------------------------------|----------------|
| Melting Range (°C) | Not Available | Viscosity | Not Available |
| Boiling Range (°C) | Not Available | Solubility in water (g/L) | Miscible |
| Flash Point (°C) | Not Applicable | pH (1% solution) | Not Available |
| Decomposition Temp (°C) | Not Available | pH (as supplied) | Not Available |
| Autoignition Temp (°C) | Not Available | Vapour Pressure (kPa) | Not Available |
| Upper Explosive Limit (%) | Not Applicable | Specific Gravity (water=1) | Not Available |
| Lower Explosive Limit (%) | Not Applicable | Relative Vapour Density (air=1) | Not Available |
| Volatile Component (%vol) | Not Available | Evaporation Rate | Not Available |

Section 10 - STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY

• Presence of incompatible materials.

• Product is considered stable.

• Hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

■ Accidental ingestion of the material may be damaging to the health of the individual. Ingestion may result in nausea, abdominal irritation, pain and vomiting.

EYE

This material can cause eye irritation and damage in some persons.

SKIN

The material may cause mild but significant inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering. Open cuts, abraded or irritated skin should not be exposed to this material.

INHALED

■ Not normally a hazard due to non-volatile nature of product.

CHRONIC HEALTH EFFECTS

• There is limited evidence that, skin contact with this product is more likely to cause a sensitisation reaction in some persons compared to the general population.

TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

| CARCINOGEN diethanolamine | International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs | Group | 2B | Possibly carcinogenic to humans |
|-------------------------------|--|-----------------|----------------------------------|---------------------------------------|
| SKIN diethanolamine | GESAMP/EHS Composite List Profiles | - GESAMP Hazard | D1: skin irritation/corrosion | 2 |

Section 12 - ECOLOGICAL INFORMATION

| Ecotoxicity |
|-------------|
| Ingredient |

tall oil fatty acids diethanolamide diethanolamine Persistence: Water/Soil No Data Available LOW Persistence: Air No Data Available LOW Bioaccumulation No Data Available LOW

No Data Available HIGH

Mobility

Section 13 - DISPOSAL CONSIDERATIONS

• Recycle wherever possible or consult manufacturer for recycling options.

• Consult State Land Waste Management Authority for disposal.

• Bury residue in an authorised landfill.

• Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM: None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, IATA, IMDG

Section 15 - REGULATORY INFORMATION

Indications of Danger:

Xi

Irritant

POISONS SCHEDULE None

REGULATIONS

Regulations for ingredients

tall oil fatty acids diethanolamide (CAS: 68155-20-4) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)","International Numbering System for Food Additives","OECD List of High Production Volume (HPV) Chemicals"

diethanolamine (CAS: 111-42-2) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IND IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution – Norway", "Sigma-AldrichTransport Information"

water (CAS: 7732-18-5) is found on the following regulatory lists;

"Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution – Norway", "Sigma-AldrichTransport Information"

No data for Metalium XDP 2000 (CW: 4871-86)

Section 16 - OTHER INFORMATION

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references. A list of reference resources used to assist the committee may be found at: www.chemwatch.net/references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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This is the end of the MSDS.