

Material Safety Data Sheet

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Issue date: August 2011

ANAPAC RETARDER

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: ANAPAC RETARDER

Manufacturer's Product Code: DR2

Use: Flexographic printing ink retarder.

DYEPAC LIQUID INKS PTY. LTD.

A.C.N. 009 995 215

A.B.N.94 009 995 215

29 ENTERPRISE STREET

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2. HAZARDS IDENTIFICATION

HAZARDOUS ACCORDING TO ASCC/NOHSC/EU CRITERIA

Hazard Category: Harmful (Xn), Irritant (Xi)

Hazard Classification: HAZARDOUS SUBSTANCE, NON-DANGEROUS GOODS

RISK PHRASES

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R36/38 Irritating to eyes and skin.

SAFETY PHRASES

S36/37 Wear suitable protective clothing and gloves.

S45 In case of accident or if you feel unwell, contact a doctor or Poisons Information Centre immediately and show this container or label.

Road Transport (ADR/RID)

UN Number: None allocated

Proper Shipping Name: NONE ALLOCATED

Dangerous Goods Class: None allocated

Packing Group: None allocated

Poison Schedule: None allocated [Aust].

Warning Statement:

Vapour and liquid is harmful by skin, inhalation and if swallowed. Liquid will cause irritation to eyes and skin.

Combustible liquid, avoid all sources of ignition, heat and naked flames.

3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE NAME	Proportion	CAS Number
2-BUTOXY ETHANOL	60 to 100 %	111-76-2

All other ingredients not hazardous according to ASCC/NOHSC/EU Criteria.

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4. FIRST AID MEASURES

Swallowed:

If swallowed, **DO NOT** induce vomiting. If victim conscious, give 1 to 2 glasses of water to drink. Seek urgent medical assistance.

Eye:

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

Skin:

If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

Inhaled:

Remove victim to fresh air. Apply resuscitation if victim is not breathing - Administer oxygen if breathing is difficult. Transport to hospital or doctor immediately.

First Aid Facilities:

Eye wash fountain, safety shower and normal wash room facilities.

Advice to Doctor:

Treat symptomatically.

For advice, contact Poisons Information Centre

In Australia call Tel: 13 1126

In New Zealand Tel: 034747000

5. FIRE-FIGHTING MEASURES

Fire/Explosion Hazard

If safe to do so, move undamaged containers from fire area.

SUITABLE EXTINGUISHING MEDIA: Foam, dry chemical or carbon dioxide.

HAZARDS FROM COMBUSTION PRODUCTS: Decomposes on heating emitting oxides of carbon and noxious smoke.

PRECAUTIONS FOR FIRE FIGHTERS AND SPECIAL PROTECTIVE EQUIPMENT: Self-contained breathing apparatus (SCBA) required for fire-fighting personnel. If possible to do so safely, shut off fuel to fire. Avoid spreading burning liquid with water used for cooling fire exposed containers when using water spray, boil-over may occur when the product temperature reaches the boiling point of water, thereby resulting in re-ignition.

HAZCHEM CODE: None allocated [Aust]

FLAMMABILITY

This product is a **COMBUSTIBLE (C1) LIQUID** and must be stored, handled and used according to the requirements of AS 1940 - The Storage and Handling of Flammable and Combustible Liquids.

Flash Point: 64.0°C

Flammability Limits: LEL: 1.1 % UEL: 12.7

Auto-ignition Temperature: 238°C

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures:

Combustible Liquid. Avoid all sources of ignition. Keep unnecessary people away; Isolate hazard area and deny entry. Ventilate area. Wear suitable protective equipment as outlined under personal protection in this MSDS.

Methods and Materials for Containment and Clean Up Procedures:

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6. ACCIDENTAL RELEASE MEASURES (continued)

Throw diatomaceous earth onto spill. **DO NOT** use sawdust. **ALLOW TO ABSORB**. Use non-sparking tools or HEPA vacuum system to pick up. Place into labelled drum(s) for later disposal. If risk of fire, blanket the spill with foam or use water fog to disperse vapour clouds. Consult an expert regarding disposal of this product.

7. HANDLING AND STORAGE

Precautions for Safe Handling:

Combustible Liquid. Avoid ignition sources. Do not get in eyes. Avoid inhalation of vapours. Provide adequate ventilation.

Conditions for Safe Storage:

Keep containers tightly closed, when not using the product. Store in original packages as approved by manufacturer. Store in an area that is dry and well-ventilation away from ignition sources. The floor of the depot should be impermeable. Store away from oxidizing agents. For further information please refer to the Engineering Controls of this MSDS.

This material is a **COMBUSTIBLE (C1) LIQUID** and must be stored, handled and used according to the requirements of AS 1940 - The Storage and Handling of Flammable and Combustible Liquids.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards

The following exposure standards have been assigned by [NOHSC] for::

2-BUTOXY ETHANOL

[NOHSC]

[TWA] 25 ppm 121 mg/m³

Notices: Sk

References: H;R

Sk Notices:

The adopted national exposure standards listed only consider absorption via inhalation. In some instances, special measures may be required to prevent absorption through the skin. Chemical compounds requiring such precautions are specified by the notation 'Sk'.

Engineering Controls

Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate.

Personal Protection Equipment

GLOVES: Neoprene or nitrile.

EYES: Chemical goggles or spectacles with side shields to protect eyes.

RESPIRATORY PROTECTION: Avoid breathing of vapours. Filter capacity and respirator type depends on exposure levels and type of contaminant. Select and use respirators in accordance with AS/NZS 1715. When vapours exceed the exposure standards and there is no suitable ventilation systems then the use of a half-face respirator fitted with an organic vapour cartridge is recommended.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colourless liquid with characteristic odour.
Boiling Point:	171°C
Boiling Point:	- 70°C
Vapour Pressure:	0.88 mmHg @ 25°C
Specific Gravity:	0.901
Flash Point:	64.0°C
Flammability Limits:	LEL: 1.1 % UEL: 12.7
Solubility in Water:	Miscible with water and most organic solvents.

Other Properties

Auto-ignition Temperature: 238°C

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:

Stable under normal conditions of use.

CONDITIONS TO AVOID:

Ignition sources and mixing with incompatibles.

INCOMPATIBLE MATERIALS:

Oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS:

Decomposes on heating emitting oxides of carbon and noxious smoke.

HAZARDOUS REACTIONS:

Will not occur.

11. TOXICOLOGICAL INFORMATION

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

ACUTE HEALTH EFFECTS

Swallowed:

Harmful if swallowed. May cause irritation to mouth, throat and stomach with effects including pains in the stomach, which may lead to nausea, vomiting and diarrhoea. Swallowing large quantities of 2-butoxy ethanol may result in metabolic acidosis, hypokalemia, hemoglobinuria, and possibly coma.

Eye:

May cause irritation to the eyes, with effects including: tearing, pain, stinging and blurred vision.

Skin:

Harmful by skin contact. May cause irritation to the skin, with effects including; Redness and itchiness. 2-butoxy ethanol may be absorbed through the skin with resultant toxic effects in blood system, spleen and testes.

Inhaled:

Harmful if inhaled. Mists or vapours will cause irritation to the nose, throat and respiratory system with effects including: Dizziness, headache, coughing, loss of co-ordination and chest pains. 2-butoxy ethanol may affect the central nervous system.

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11. TOXICOLOGICAL INFORMATION (continued)

Chronic:

Prolonged or repeated skin contact may lead to dermatitis. Product may also be absorbed through the skin with resultant toxic effects. Prolonged or repeated exposure may lead to irreversible damage to health. Prolonged or repeated exposure or deliberately concentrating and inhaling the vapour may result in lung function incapacity or death.

2-Butoxy ethanol:

Oral LD50(rat): 470 mg/kg

Inhalation LC50(rat): 450 ppm/4Hr

Dermal LD50(rabbit): 220 mg/kg

12. ECOLOGICAL INFORMATION

No information is available for this product, however, large quantities should not be discharged to waterways, sewers or drains.

13. DISPOSAL CONSIDERATIONS

Refer to appropriate authority in your State. Dispose of material through a licensed waste contractor. Advise of combustible nature.

14. TRANSPORT INFORMATION

Road Transport (ADR/RID)

UN Number: None allocated

Proper Shipping Name: NONE ALLOCATED

Dangerous Goods Class: None allocated

Packing Group: None allocated

Air Transport (IATA)

UN Number: None allocated

Proper Shipping Name: NONE ALLOCATED

Dangerous Goods Class: None allocated

Packing Group: None allocated

Sea Transport (IMDG)

UN Number: None allocated

Proper Shipping Name: NONE ALLOCATED

Dangerous Goods Class: None allocated

Packing Group: None allocated

15. REGULATORY INFORMATION

Poison Schedule: None allocated [Aust].

Inventory Status:

Australia (AICS) Y

United States (TSCA) Y

Europe (EINECS/ELINCS) Y

Y = all ingredients are on the inventory.

EU Label: Harmful (Xn), Irritant (Xi)

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16. OTHER INFORMATION

Date of Preparation:

Issue date: August 08, 2011

Supersedes: August 21, 2008

Reasons for Update:

1. Review of fields and data, promoting uniformity of MSDS.
2. Changes to Sections 2, 4, 6, 8, 11, 15 & 16, based upon SUSDP first aid information.

Key Legend Information:

NOHSC - National Occupational Health & Safety Commission {Formerly Worksafe}[Aust]

ASCC - Australian Safety and Compensation Council [Aust]

SUSDP - Standard for the Uniform Scheduling of Drugs and Poisons [Aust]

TWA - Time Weighted Average [Int]

STEL - Short Term Exposure Limit [Int]

AICS - Australian Inventory of Chemical Substances

Dangerous Goods - Initial Emergency Response Guide (SAA/SNZ HB76:2004) [Aust]

EPA - Environmental Protection Agency [Int]

NIOSH - National Institute for Occupational Safety and Health [US]

TSCA - Toxic Substances Control Act [US]

OSHA - Occupational Safety and Health Administration [US]

AS/NZS 1715 - Selection, use and maintenance of respiratory protective devices. [Aust/NZ]

AS/NZS 1716 - Respiratory protective devices. [Aust/NZ]

Hazchem Code - Fire fighters designation [Aust]

IATA - International Aviation Transport Authority [Int]

ICAO - International Civil Aviation Organization [Int]

IMO - International Maritime Organisation. [Int]

IMDG - International Maritime Dangerous Goods [Int]

United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the classification and labelling of Chemicals. [Int]

EINECS - European Inventory of Existing Commercial Chemical Substances. [Int]

ELINCS - European List of Notified Chemical Substances. [Int]

EU - European Union [Int]

ADR/RID - European Road & Rail Transport Union - [Int]

EU Directives: The classification criteria used, are adopted from the European Community's (EC) legislation for classifying dangerous substances. The criteria are taken from:

EC Council Directive 67/548/EEC

EC Council Directive 1999/45/EC

[Aust/NZ] = Australian New Zealand

[Int] = International

[US] = United States of America

Principal References:

Information supplied by manufacturer, reference sources including the public domain.

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Disclaimer

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END OF MSDS