

MATERIAL SAFETY DATA SHEET REQUIRED UNDER SAFETY AND HEALTH REGULATION FOR SHIP REPAIRING

Mar.1st,2010

SECTION 1. ----- CHEMICAL IDENTIFICATION-----

Product name : Esculin hydrate Product Number : EB0452

SECTION 2. - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -

Formula : C15H16O9 · xH2O Molecular Weight : 340.28 g/mol

CAS-No. EC-No. Index-No. Concentration

Aesculin

531-75-9 208-517-5 - -

SECTION 3. ----- HAZARDS IDENTIFICATION -----

WHMIS Classification

Not WHMIS controlled. Not WHMIS controlled.

HMIS Classification Health Hazard: 0 Flammability: 0 Physical hazards: 0 Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation. Skin May be harmful if absorbed through skin. May cause skin irritation.

Eves May cause eve irritation.

Ingestion May be harmful if swallowed.

SECTION 4. ----- FIRST-AID MEASURES-----

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

SECTION 5. ----- FIRE FIGHTING MEASURES -----

Flammable properties

Flash point no data available

Ignition temperature no data available

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

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Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

Personal precautions

Avoid dust formation.

Environmental precautions

Do not let product enter drains.

Methods for cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7. ----- HANDLING AND STORAGE-----

Handling

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Storage

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

For prolonged or repeated contact use protective gloves.

Eye protection

Safety glasses

Hygiene measures

General industrial hygiene practice.

SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----

Appearance

Form powder

Colour off-white

Safety data

pH no data available

Melting point 195 - 198 °C (383 - 388 °F)

Boiling point no data available

Flash point no data available

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Water solubility no data available

SECTION 10. ------STABILITY AND REACTIVITY -----

Storage stability

Stable under recommended storage conditions.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

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Acute toxicity

LD50 Intraperitoneal - mouse - 1,900 mg/kg

Irritation and corrosion

no data available

Sensitisation

no data available

Chronic exposure

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Signs and Symptoms of Exposure

Weakness, Vomiting, Diarrhoea

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Ingestion May be harmful if swallowed.

Additional Information RTECS: DJ3085000

SECTION 12. ----- ECOLOGICAL INFORMATION -----

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

no data available

Further information on ecology

no data available

SECTION 13. ----- DISPOSAL CONSIDERATIONS -----

Product

Observe all federal, state, and local environmental regulations.

Contaminated packaging

Dispose of as unused product.

SECTION 14. ----- TRANSPORT INFORMATION -----

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15. ----- REGULATORY INFORMATION -----

DSL Status

All components of this product are on the Canadian DSL list.

WHMIS Classification

Not WHMIS controlled. Not WHMIS controlled.

SECTION 16. ----- OTHER INFORMATION-----

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. BBI. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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