



Product : ALKINDO 4259-50
MSDS Number : LMSD-237
Version Date : November 30, 2010

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product : ALKINDO 4259-50
Type : Modified Alkyd Resin

Supplier details:

PT ALKINDO MITRARAYA (AMR)
JI Gatot Subroto km. 8, Desa Kadu Jaya, Kecamatan Curug
Tangerang 15810
INDONESIA
Phone : + 62 – 21 – 59302250 (hunting 10 lines)
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Website : www.alkindo.net
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2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Acute Toxicity (Inhalation) Category 4
Acute Vertebrate Hazard Category 3
Chronic Aquatic Hazard Category 2
Eye Irritation Category 2A
Flammable Liquid Category 3
Organ Damage Category 2
Reproductive Toxicity Category 2
Skin Irritation Category 2
Carcinogenicity Hazard Category 2
Aquatic Environment Acute Hazard Category 2

GHS LABELING



GHS SIGNAL WORD

Danger

HAZARD STATEMENTS

Flammable liquid and vapour
Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
Suspected of damaging fertility
May cause damage to organs through prolonged or repeated exposure.
May cause long lasting harmful effects to aquatic life.
Harmful to terrestrial vertebrates
Suspected of causing cancer



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May cause drowsiness and dizziness

PRECAUTIONARY STATEMENTS

Prevention

Ground/bond container and receiving equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Use only non-sparking tools. Keep container tightly closed. Keep away from heat/sparks/open flame/hot surfaces. -No smoking. Use personal protective equipment as required. Take precautionary measures against static discharge. Use only outdoors or in well-ventilated area. Use explosion-proof electrical/ventilating/lighting/equipment. Wear protective gloves and eye/face protection

Response

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Specific treatment - refer to supplemental first aid instructions. Take off contaminated clothing and wash before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

In case of fire, use the following media for extinction: water spray or fog, alcohol foam, carbon dioxide, dry chemical.

Storage

Store in well-ventilated place. Keep cool. Store locked up. Keep container tightly closed.

Disposal

Dispose of contents/container in accordance with local and national regulations.

3. COMPOSITION INFORMATION

CHEMICAL DESCRIPTION

Alkyd resin – based on linseed oil modified with TDI, in solution in white spirit and xylene

HAZARDOUS COMPONENTS

White Spirit 42 - 43 %
CAS No. 64742-82-1

Xylene 7 - 8 %
CAS No. 1330-20-7

4. FIRST AID MEASURES

EYE CONTACT:

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. If pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN CONTACT:

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.



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INHALED :

If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor.

SWALLOWED :

If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus. 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. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice. Avoid giving milk or oils. Avoid giving alcohol.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

Foam, dry powder, carbon dioxide, water spray.

EXPOSURE HAZARDS :

Keep containers cool by spraying with water if exposed to fire. Heating will cause pressure rise with risk of bursting and subsequent explosion. For decomposition products see Section 10.

PROTECTIVE EQUIPMENT:

Fire fighters and others exposed, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Use personal protection recommended in Section 8. Avoid breathing vapor from hot material. Where exposure level is known, wear approved, positive pressure, self-contained respirator. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.

ENVIRONMENTAL PRECAUTIONS:

Do not allow to enter drains and water courses. If sewers become contaminated contact Local Water Authority and Police. Should resin enter other waterways inform the Environment Agency.

METHODS FOR CLEANING UP:

Absorb onto sand. Drums leaking near base may be inverted. Remove sources of ignition. Cover spills with some inert absorbent material; sweep up and place in a waste disposal container. Flush spill area with water.

7. HANDLING & STORAGE

HANDLING:

Handle in a well-ventilated flameproof area preferably in an enclosed system. Keep concentration of vapors as low as is reasonably practicable and observe occupational exposure limits detailed in Section 8.

STORAGE:

Store in closed containers away from sources of heat in a well-ventilated flameproof area. Store in original containers in approved flammable liquid storage area. DO NOT store in pits, depressions, basements or areas where vapours may be trapped. No smoking, naked lights, heat or ignition sources. Keep containers securely sealed. Store away from incompatible materials in a cool, dry, well-ventilated area. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storing and handling recommendations. Storage temperature : store at 0 – 25°C.

Reason : Quality



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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING MEASURES:

Ensure adequate ventilation to keep vapor concentrations below occupational exposure limits.

OCCUPATIONAL EXPOSURE LIMITS (EH40):

White Spirit

600 ppm

Xylene

100 ppm

434 mg/m³

EYES:

Goggles.

RESPIRATORY PROTECTION:

Wear suitable respiratory protection if exposure limits may be exceeded. Airline respirator or cartridge respirator with appropriate filter.

HAND PROTECTION:

Wear impermeable gloves.

SKIN PROTECTION:

Wear suitable protective clothing.

9. PHYSICAL & CHEMICAL PROPERTIES

Phase	: Liquid (25.0 °C)
Appearance, Color	: Transparent, yellowish
Odor	: Thinner / Solvent – like
Boiling point (760 mmHg)	: 150 - 200°C
Water solubility	: insoluble
Flash point (°C)	: 38.0 (Tag close cup)

10. STABILITY & REACTIVITY

CONDITIONS TO AVOID:

Heating will cause pressure rise with risk of bursting and subsequent explosion.

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition products may include carbon monoxide and carbon dioxide.

11. TOXOLOGICAL INFORMATION

LABORATORY DATA:

Modified alkyd resin solution

This product has not been tested for toxicity. It is classified as sensitizing under 88/379/EEC and subsequent amendments.

HUMAN DATA:

White Spirit

The vapour is irritating to the nose, throat and lungs and may cause coughing, nausea, dizziness, and headache. The liquid is irritating to the eyes and skin and may be absorbed through the skin. Accidental ingestion may cause nausea, dizziness, and diarrhea.



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Xylene

Skin contact with the material may be harmful; systemic effects may result following absorption. The material may cause moderate 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. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo. If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death. Xylene is a central nervous system depressant. Headache, fatigue, tiredness, irritability and digestive disturbances (nausea, loss of appetite and bloating) are the most common symptoms of xylene overexposure. Injury to the heart, liver, kidneys and nervous system has also been noted amongst workers. Temporary memory loss, kidney impairment, temporary confusion and some evidence of disturbance of liver function was reported in workers grossly exposed to xylene (1%). One death was noted, with autopsy revealing lung congestion, oedema and local bleeding of alveoli. Inhaling xylene at 100 ppm for 5-6 hours can increase reaction time and cause slight inco-ordination. Tolerance developed during the work week, but was lost over the weekend. Physical exercise may reduce tolerance. About 4-8% of total absorbed xylene accumulates in fat.

12. ECOLOGICAL INFORMATION

ASSESSMENT:

If properly handled, this material should not present a serious environmental hazard.

TEST RESULTS:

AMR has not conducted environmental studies on this product. The product does not contain any substance that is classified under EC legislation for environmental effects. Data is available on some of the components.

White Spirit

Acute Fish Toxicity : Slightly toxic to aquatic organisms, but in most system unlikely to perish for sufficient time to pose a significant hazard.

BOD5 >0.5 Readily biodegradable

COD

Xylene

BOD5 >0.5 Readily biodegradable

COD

13. DISPOSAL CONSIDERATIONS

METHODS OF DISPOSAL; WASTE OF RESIDUES; CONTAMINATED PACKAGING

Control incineration.

Emptied drums contain solvent vapors, hazardous in respect of fire, explosion and noxiousness.

Disposal only to licensed drum reconditioners.

14. TRANSPORT INFORMATION

Land Transport

Proper Shipping Name : Resin solution

UNDG Class : 3

UN No : 1866

Packing Group : III

Transport label required : Flammable liquid

HAZCHEM Code : 3[Y]



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Sea Transport (IMO)

Proper Shipping Name : Resin solution
IMDG Class : 3
UN Number : UN1866
Packing Group : III
Transport label required : Flammable liquid

Air Transport (ICAO/IATA)

Proper Shipping Name : Resin solution
Hazard Class : 3
Packing Group : III
UN : UN1866
Transport Label Required : Flammable liquid
Packing Instruction/Maximum Net Quantity Per Package:
Passenger Aircraft : 309; 60L
Cargo Aircraft : 310; 220L

15. REGULATORY INFORMATION

European Union (EU): All components of this product are included on the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.

United States (USA): All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

China: All components of this product are included on the Chinese Inventory or are not required to be listed on the Chinese Inventory.

Japan: All components of this product are included on the Japanese (ENCS) Inventory or are not required to be listed on the Japanese Inventory.

OTHER INFORMATION

RISK PHRASES:

R10 Flammable
R20/21 Harmful by inhalation & in contact with skin
R38 Irritating to skin
R65 Harmful; may cause lung damage if swallowed

SAFETY PHRASES:

S24/25 Avoid contact with skin and eyes
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical Advice.
S37 Wear suitable gloves.
S51 Use only in well ventilated areas.

16. OTHER INFORMATION

Whilst every care has been taken in the preparation of this material safety data sheet, the same has been produced from information and data currently available to PT Alkindo Mitraraya at the date hereof; however, PT Alkindo Mitraraya cannot be responsible for any errors or omissions. If in any doubt, please consult PT Alkindo Mitraraya.

Reasons for issue: New Format.