



**Product** : ACRYLINDO 1105-45  
**MSDS Number** : CMSD-026  
**Version Date** : November 30, 2010

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## MATERIAL SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

**Product** : ACRYLINDO 1105-45  
**Type** : Thermoplastic Acrylic 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)  
Facsimile : + 62 – 21 – 59302251  
Email : [alkindo@alkindo.net](mailto:alkindo@alkindo.net)  
Website : [www.alkindo.net](http://www.alkindo.net)

### 2. HAZARDS IDENTIFICATION

#### GHS CLASSIFICATION

Flammable Liquid Category 2  
Reproductive toxicity category 2  
Aspiration hazard Category 2  
Specific target organ toxicity (repeated exposure) Category 2  
Specific target organ toxicity (single exposure) hazard Category 2  
Skin Corrosion / Irritation Hazard Category 2  
Serious Eye Damage / Eye Irritation Hazard Category 1  
Skin Sensitizer Hazard Category 1  
Carcinogenicity Hazard Category 2  
Aquatic Environment Chronic Hazard Category 4

#### 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  
May cause respiratory irritation  
May cause drowsiness and dizziness



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#### **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**

Thermoplastic acrylic resin, in solution in toluene / n-butanol.

#### **HAZARDOUS COMPONENTS**

Toluene	26 – 28 %
CAS No. 108-88-3	
n-butanol	26 – 28 %
CAS No. 71-36-3	

### **4. FIRST AID MEASURES**

#### **EYE CONTACT:**

Rinse open eyes with plenty of water for at least 15 minutes. Consult physician.

#### **SKIN CONTACT:**

Remove contaminated clothing immediately. Wash off immediately with plenty of water and soap. In case of complaints consult physician.

#### **INHALED :**

Remove person to fresh air. In case of complaints consult a physician. In case of unconsciousness, store, respectively transport in stable side position. Consult physician immediately. Give artificial respiration in case breathing is not regular or if it has stopped.

#### **SWALLOWED :**

Do not induce vomiting. Consult physician immediately.



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## 5. FIRE FIGHTING MEASURES

### EXTINGUISHING MEDIA:

CO<sub>2</sub>, extinguishing powder, water jet. Fight larger fire with water jet or alcohol resistant foam. Never apply a strong water jet

### SPECIAL HAZARDS:

May cause explosive gas-air-mixtures.

### EXPOSURE HAZARDS :

The vapor is heavier than air, spreads along the ground and distant ignition is possible. In case of fire: formation of carbon monoxide and dioxide. For decomposition products see Section 10.

### PROTECTIVE EQUIPMENT:

Use self-contained breathing apparatus and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS:

Use personal protection recommended in Section 8. Keep spectators away. Close leaks without taking any risk. Avoid contact with skin and eyes. Do not ingest or inhale. Keep away from sources of ignition. No smoking.

### ENVIRONMENTAL PRECAUTIONS:

Do not discharge into drains, surface or ground water. Contact local authorities if product pollutes soil or vegetation.

### METHODS FOR CLEANING UP:

Larger amounts should be pumped into adequate containers. Contain with absorbent material (sand, diatomaceous earth, universal absorbent, Oil Dri) and dispose accordingly.

### FURTHER MEASURES:

Vapors in combination with air can form an explosive compound. Explosion risk. Inform fire department and water pollution authority when product is spilled in sewage system.

## 7. HANDLING & STORAGE

### HANDLING:

Provide adequate ventilation, also in floor area (vapors are heavier than air). Handle and open container with care. Keep containers tightly closed. Electric discharges can be formed during pumping. Earth all devices and apparatus. Avoid spilling or spraying in closed rooms. Keep concentration of vapors as low as is reasonably practicable and observe occupational exposure limits detailed in Section 8.

### STORAGE:

Store in tightly sealed containers in a cool and well ventilated location. Protect against heat and direct sunlight. Store in a room with a solvent-proof floor. Suitable container material: stainless steel. Unsuitable container material and interior lining: natural rubber, butyl, nitrile and neoprene rubber

Storage temperature : store at 0 – 25°C.

Reason : Quality

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### ENGINEERING MEASURES:

Adequate ventilation to control airborne concentrations below the exposure limits.



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OCCUPATIONAL EXPOSURE LIMITS (EH40):

*Toluene*

50 ppm  
192 mg/m<sup>3</sup>

*n-Butanol*

20 ppm  
100 mg/m<sup>3</sup>

EYES:

Safety glasses with protective shields (EN 166).

RESPIRATORY PROTECTION:

Respiratory equipment required in case of insufficient ventilation. Filter type AX-P2 (organic vapors, particles).

HAND PROTECTION:

Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe EN374, US F739) made from the following material may provide the suitable chemical protection: Nitrile rubber or Viton gloves. Each work area must have adequate protective gloves. The manufacturer's directions for use should be observed because of the great diversity of types.

PROTECTIVE GLOVE MATERIAL:

Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers. Fluoro carbon rubber - FKM (480 min; 0.4 mm).

SKIN PROTECTION:

Wear protective clothing.

## 9. PHYSICAL & CHEMICAL PROPERTIES

Phase	: Liquid (25.0 °C)
Appearance, Color	: Transparent
Odor	: Thinner / Solvent – like
Boiling point (760 mmHg)	: 115°-130°C
Water solubility	: insoluble
Flash point (°C)	: 4.4-6.0 (Tag close cup)

## 10. STABILITY & REACTIVITY

CONDITIONS TO AVOID:

Avoid contact with heat, sparks and open fire. Avoid accumulation of vapor.

HAZARDOUS REACTIONS:

Vigorous reactions with strong oxidants.

HAZARDOUS DECOMPOSITION PRODUCTS:

None if handled according to specifications.

## 11. TOXICOLOGICAL INFORMATION

LABORATORY DATA:

*Thermoplastic acrylic resin*

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

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HUMAN DATA:

*Toluene*

Inhalation of fumes/vapors can cause irritation of the respiratory tract. Skin contact: risk of skin absorption.  
Skin contact: repeated or long-term contact with the product can cause skin irritation and dermatitis.  
Inhalation: Long-term overexposure may cause headache, dizziness, tiredness, nausea, unconsciousness and apnea. The exposure to very high concentrations of similar products has been associated with heart arrhythmia and cardiac arrest.

*n-Butanol*

Butanol has acute oral (rat) and dermal (rabbit) LD50 values of 0.790 g/kg and 3.4 g/kg, respectively. The inhalation LC50 (rat) value after a 4-hour exposure is 8000 ppm (24.24 mg/L). Acute overexposure to vapors of butanol may cause headache, dizziness, drowsiness, blurred vision and a burning sensation in the eyes. Chronic overexposure to butanol vapors can produce headache and central nervous system depression. Direct contact with butanol may cause severe eye irritation and moderate skin irritation.

## 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.

*Toluene*

Elimination (Persistence and Degradability): 86 % (20d); readily biodegradable.  
The product is volatile and can be separated from water to a large extent by stripping.  
Mobility and Bioaccumulation: Product floats on water.  
Bioaccumulation in unlikely.

Ecological effects

Aquatic toxicity: :

- Fish toxicity: LC50: 24 mg/l (96h, *Oncorhynchus mykiss*)
- Daphnia toxicity: EC50: 11.5 mg/l (48h, *Daphnia magna*)
- Bacteria toxicity: NOEC: 29 mg/l (16h; *Pseudomonas putida*)
- Algae toxicity: IC50: 12 mg/l (72h; *Selenastrum capricornutum*)

Further ecological effects: COD: 700 mg/g

BOD5: 860 mg/g

AOX Value: Product does not contain any organically bound halogen.

Further information: Water hazard class: 2

Do not let product contaminate ground water, waterways or sewage system.

*n-Butanol*

LC<sub>50</sub> 96hr Fathead minnow 1910 mg/L.

BOD<sub>5</sub> >0.5 Readily biodegradable

COD

## 13. DISPOSAL CONSIDERATIONS

Product: In accordance with current regulations, product may be taken to an incineration plant.

Uncleaned packaging: Recycling is possible when packaging is clean. Completely empty packaging can be disposed of with the regular waste.

Do not puncture, cut or weld uncleaned drums.

Dispose according to product.



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#### 14. TRANSPORT INFORMATION

##### Land Transport

Class: 3  
Packaging group : II  
UN No. : 1294  
Classification code : F1  
Tunnel No. : D/E  
Transport label required : Flammable liquid  
HAZCHEM Code : 3[Y]  
Proper Shipping Name : Resin solution

##### Sea Transport (IMO)

IMDG/GGVSee : Class: 3  
Packaging group : II  
UN No. : 1294  
Hazard No. : 3  
Proper Shipping Name : Resin solution

##### Air Transport (ICAO/IATA)

ICAO/IATA : Class: 3  
Packaging group : II  
UN No. : 1294  
Hazard No. : 3  
Proper Shipping Name : Resin solution

#### 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  
R38 Irritating to skin  
R67 Vapours may cause drowsiness and dizziness  
R20 Harmful by inhalation  
R65 Harmful: may cause lung damage if swallowed  
R11 Highly flammable  
R63 Possible risk of harm to the unborn child  
R48 Danger of serious damage to health by prolonged exposure

###### SAFETY PHRASES:

S46 If swallowed, seek medical advice immediately and show this container or label.  
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.



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S02 Keep out of reach of children.  
S36 Wear suitable protective clothing.  
S37 Wear suitable gloves.  
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.  
S43 In case of fire use sand, foam, dry powder or carbon dioxide extinguisher.  
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.