

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

ProductName : Methylaluminum dichloride solution

## 2. HAZARDS IDENTIFICATION

### Risk advice to man and the environment

Highly flammable. Irritating to skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of impaired fertility. Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness and dizziness. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula	CH <sub>3</sub> AlCl <sub>2</sub>		
CAS-No.	EC-No.	Classification	Concentration
<b>n-Hexane</b> 110-54-3	203-777-6	F, Xn, N, Repr.Cat.3, R11 - R38 - R48/20 - R62 - R65 - R67 - R51/53	>= 75 - <= 99 %
<b>Methylaluminum dichloride</b> 917-65-7	213-032-7	-	>= 1 - <= 25 %

For the full text of the R-phrases mentioned in this Section, see Section 16.

## 4. FIRST AID MEASURES

### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

### If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

### Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

### Further information

Use water spray to cool unopened containers.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### Methods for cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

## 7. HANDLING AND STORAGE

### Handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

### Storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.

#### Eye protection

Face shield and safety glasses

#### Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form liquid

### Safety data

pH no data available

Melting point no data available

Boiling point no data available

Flash point -23 °C - closed cup

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Density 0,729 g/cm<sup>3</sup>

Water solubility no data available

## 10. STABILITY AND REACTIVITY

### Storage stability

Stable under recommended storage conditions.

### Conditions to avoid

Heat, flames and sparks.

### Materials to avoid

Oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas, Aluminum oxide

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

no data available

### 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

Hazardous components

n-Hexane

110-54-3

Product

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea

### Potential Health Effects

#### Inhalation

Harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness.

#### Skin

May be harmful if absorbed through skin. Causes skin irritation.

#### Eyes

May cause eye irritation.

#### Ingestion

May be harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage.

#### Target Organs

Peripheral nervous system, Kidney, Testes,

## 12. ECOLOGICAL INFORMATION

### Elimination information (persistence and degradability)

no data available

### Ecotoxicity effects

no data available

### Further information on ecology

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 13. DISPOSAL CONSIDERATIONS

### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe to all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

### Contaminated packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### ADR/RID

Proper shipping name: ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE

Packing group: I

UN-Number: 3399 Class: 4.3 (3)

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