## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name**: DEAC

Chemical name: Diethylaluminium Chloride

Use of substance/preparation: Chemical intermediate, Co-Catalyst for olefin polymerization

## 2. HAZARDS IDENTIFICATION

## **EMERGENCY OVERVIEW**

DANGER!

**PYROPHORIC** 

REACTS VIOLENTLY WITH WATER, LIBERATING HIGHLY FLAMMABLE GAS.

SPONTANEOUSLY FLAMMABLE IN AIR.

CAUSES SEVERE BURNS.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

# **INGREDIENT**

Diethylaluminium chloride CAS# % BY WEIGHT

96-10-06

# 4. FIRST AID MEASURES

# Swallowing

Obtain medical attention immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person.

#### Inhalation

Remove to fresh air. If breathing is difficult, oxygen may be given by qualified personnel. If breathing has stopped, give artificial respiration. Obtain medical attention immediately.

#### Skin contact

Immediately flush skin thoroughly with water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing. Obtain medical attention immediately. Do not remove clothing which adheres to burned tissue.

#### Eye contact

Obtain medical attention immediately. Immediately flush with large quantities of water on site for 20 to 30 minutes. The eyelids should be held open and away from the eyeball to ensure that all surfaces are flushed thoroughly. Call a physcian. Continue water flush up to one hour during transport to a medical facility.

# Notes to physician

Symptomatic treatment as in case of burns.

 $Please, note our \ recommendations \ on \ treatment: "Aluminium \ alkyls - properties \ and \ handling"$ 

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# 5. FIRE-FIGHTING MEASURES

## NFPA CLASSIFICATION

Health: 3 Flammability: 4 Reactivity: 3 Special provisions: W

## Hazardous combustion products

Combustible gases (olefines, hydrogen). Fume.

## Special fire fighting procedures

PYROPHORIC

Reacts violently with water, liberating highly flammable gas.

Caution: covered product is still reactive.

## Special protective equipment for firefighters

Use fireproof clothing.

Wear heat resistant clothing, self contained breathing apparatus.

## Extinguishing media

Suitable:

- fire blanket - dry sand Carbon dioxide. (in case of small fires) - dry powder
- nitrogen - vermiculite

(in case of larger fires)

Water.

- foam

#### Unsuitable:

# Unusual fire and explosion hazards

Formation of fumes which irritate the respiratory tract., In case of a fire aside from the major combustion products carbon dioxide and carbon monoxide other

gases and vapors may be formed., Especially the formation of hydrogen chloride must be taken into account.

# **6. ACCIDENTAL RELEASE MEASURES**

## Personal precautions

Eliminate sources of ignition., Avoid inhalation of vapors., Avoid contact with skin and eyes.

**MSDS** 

#### DEAC

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

## PERSONAL PROTECTION

#### Respiratory protection

None required in normal use., EMERGENCY USE: Air supplied respirators are required in oxygen-deficient atmospheres. Before entering area you must check

flammable or oxygen-deficient atmospheres.

## Hand protection / protective gloves

Flame resistant protective gloves

## Eye protection

Full face safety goggles., Full face shield.

## **Skin protection**

Fireproof impregnated clothing

## Other protective equipment

A fire-proof suit or a full-body aluminized suit are recommended if there is a potential for exposure to large quantities of product

#### **Industrial hygiene measures**

Do not smoke at work., Remove contaminated clothing and clean it.

## **ENGINEERING CONTROLS**

<u>Ventilation</u>
This product should be stored in closed equipment to keep vapors in and keep moisture out.

Component	<u>Type</u>	<u>Value</u>	<u>Remark</u>
Aluminum Alkyls as Aluminum	TWA, OSHA &	$2.0 \text{ ml/m}^3$	
ACGIH			

# 9. PHYSICAL AND CHEMICAL PROPERTIES

## APPEARANCE

Liquid Physical state

**Boiling point** 127 ℃ at STP unless specified below.at 67

hPa Solidification

-70 ℃ Density

0.97 g/cm3 at 20  $\,^{\circ}\mathrm{C}$ 

Flash point

PYROPHORIC

ca. 170 °C Thermal decomposition

1.6 mPa.s at 20 ℃ Dynamic viscosity

## 10. STABILITY AND REACTIVITY

Stable under recommended storage conditions. See also section 7. Stability:

Incompatible materials: Air. Water.

## **Hazardous combustion products:**

Combustible gases (olefines, hydrogen). Fume.

## OTHER PROPERTIES

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## 11. TOXICOLOGICAL INFORMATION

## SIGNIFICANT DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH

Due to the high reactivity no toxicological tests can be performed.

Causes burns.

The fumes resulting from incineration or decomposition of the product may lead to irritation or inflammation of the respiratory system.

## 12. ECOLOGICAL INFORMATION

Additional information

Due to the high reactivity no ecotoxicological tests can be performed.

## 13. DISPOSAL CONSIDERATIONS

Dilute with petroleum or Diesel oil to a maximum 10 % solution and burn in a permitted hazardous waste incinerator. General:

Non-cleaned packages

Rinse with dry inert hydrocarbon., Dispose of washing solution in the same way as

## 14. TRANSPORT INFORMATION

**DOT Classification** 

Proper shipping name: ALUMINUM ALKYL HALIDES

4.2,(SPONTANEOUSLY COMBUSTIBLE) Class:

Subsidiary risk: 4.3 **UN ID #:** UN3394

Packing group:

**Technical description** DIETHYLALUMINIUM CHLORIDE

**IMDG Classification** 

Proper shipping name: Organometallic substance, liquid, pyrophoric, water-reactive

Class: 4.2 Subsidiary risk: 4.3 UN ID#: UN 3394

Packing group:

**Technical description** (DIETHYLALUMINIUM CHLORIDE)

ICAO Classification FORBIDDEN BY AIR.

## 15. REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40CFR372 (for SARA 313). This information must be included in MSDS's that are copied and distributed for this material. Components present in this product at a level which could require reporting under the statute are:

Chemical name Diethylaluminium CAS# Max weight % 100.00

chloride 96-10-6

New Jersey Worker and Community Right-To-Know Act (Labeling Requirements)

CAS# New Jersey TS Number Chemical name: Diethylaluminium chloride 96-10-6

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# CHEMICAL INVENTORY

Canada: This product is on the DSL.

Europe: This product is on the EINECS inventory.

The ingredients of this product are on the TSCA inventory. **United States:** 

This product is on the AICS inventory. Australia: This product is on the IECSC Inventory. China: This product is on the ENCS inventory. Japan:

This product is listed on the Existing Chemicals List (ECL). Korea:

**Philippines:** This product is on the PICCS.

## 16. OTHER INFORMATION

#### FURTHER INFORMATION

MAY BE ON THE INVENTORY LIST BUT NOT NECESSARILY REGISTERED, (Korea, China, New Zealand) CONSULT REGULATORY SPECIALIST.

## HMIS RATING

Health: 3	Flammability: 4	Reactivity: 3
STP	7	Standard temperature and pressure
W/W		Weight/Weight
1 (HMIS)		0 (HMIS)
2 (HMIS)		Slight hazard
3 (HMIS)		Moderate hazard
4 (HMIS)		Serious hazard
X (HMIS)		Severe hazard

PPI: Personal protection rating to be supplied by user depending on use conditions

THE OPINIONS EXPRESSED HEREIN ARE THOSE OF QUALIFIED EXPERTS WITHIN CHEMTURA CORPORATION. WE BELIEVE THAT THE INFORMATION CONTAINED HEREIN IS

CURRENT AS OF THE DATE OF THIS SAFETY DATA SHEET. SINCE THE USE OF THIS INFORMATION AND OF THESE OPINIONS AND THE CONDITIONS OF USE OF THIS PRODUCT ARE NOT WITHIN THE CONTROL OF CHEMTURA CORPORATION, IT IS THE USER'S OBLIGATION TO DETERMINE THE CONDITIONS OF SAFE USE OF THE PRODUCTS.