

# Material Safety Data Sheet

## Ethylaluminium dichloride, 1.0M solution in heptane

ACC# 09783

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Ethylaluminium dichloride, 1.0M solution in heptane

**Catalog Numbers:** AC185450000, AC185451000, AC185458000

**Synonyms:** EADC

**Company Identification:**

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01

**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
142-82-5	Heptane (n-)	85	205-563-8
563-43-9	Ethylaluminium dichloride	15	209-248-6

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Not available. Appearance: colorless clear liquid.

Not available.

**Target Organs:** Respiratory system, eyes, skin.

#### Potential Health Effects

**Eye:** Causes eye burns.

**Skin:** Causes skin burns.

**Ingestion:** Causes gastrointestinal tract burns. May cause lung damage.

**Inhalation:** Causes chemical burns to the respiratory tract. Inhalation of vapors may cause drowsiness and dizziness.

**Chronic:** Not available.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** Do not induce vomiting. Get medical aid immediately.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water Reactive. Material will react with water and may release a flammable and/or toxic gas. Flammable liquid and vapor.

**Extinguishing Media:** DO NOT USE WATER! Smother with dry sand, dry clay, dry ground limestone (CaCO<sub>3</sub>), or use approved Class D extinguishers.

**Flash Point:** Not available.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** 1 - health, 3 - flammability

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool. Do not expose spill to water.

### Section 7 - Handling and Storage

**Handling:** Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing.

**Storage:** Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area. Corrosives area. Water free area. Store under nitrogen.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Heptane (n-)	400 ppm TWA; 500 ppm STEL	85 ppm TWA; 350 mg/m <sup>3</sup> TWA 750 ppm IDLH	500 ppm TWA; 2000 mg/m <sup>3</sup> TWA
Ethylaluminum dichloride	none listed	none listed	none listed

**OSHA Vacated PELs:** Heptane (n-): 400 ppm TWA; 1600 mg/m<sup>3</sup> TWA Ethylaluminum dichloride: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Not available.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Clear liquid

**Appearance:** colorless

**Odor:** solvent odor

**pH:** <7

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:**Not available.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:**Not available.

**Decomposition Temperature:**> 180 deg C

**Solubility:** vigorous reaction

**Specific Gravity/Density:**0.920

**Molecular Formula:**C<sub>2</sub>H<sub>5</sub>AlCl<sub>2</sub>

**Molecular Weight:**126.95

## Section 10 - Stability and Reactivity

**Chemical Stability:** Air sensitive. Reacts violently with water. Moisture sensitive.

**Conditions to Avoid:** Incompatible materials, ignition sources, exposure to air, exposure to moist air or water.

**Incompatibilities with Other Materials:** Contact with water liberates highly flammable gases., oxidizing agents, acids, alcohols, oxygen, organic halides.

**Hazardous Decomposition Products:** Hydrogen chloride, carbon monoxide, carbon dioxide, aluminum oxide, hydrocarbons.

**Hazardous Polymerization:** Has not been reported

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 142-82-5: MI7700000

**CAS#** 563-43-9: BD0705000

### LD50/LC50:

**CAS#** 142-82-5:

Inhalation, rat: LC50 = 103 gm/m<sup>3</sup>/4H;

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**CAS#** 563-43-9:

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### Carcinogenicity:

**CAS#** 142-82-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**CAS#** 563-43-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No data available.

**Teratogenicity:** No data available.

**Reproductive Effects:** No data available.

**Mutagenicity:** No data available.

**Neurotoxicity:** No data available.

## Other Studies:

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.

**Environmental:** No information available.

**Physical:** No information available.

**Other:** Harmful to aquatic life in very low concentrations.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE	No information available.
<b>Hazard Class:</b>	4.3	
<b>UN Number:</b>	UN3399	
<b>Packing Group:</b>	I	

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 142-82-5 is listed on the TSCA inventory.

CAS# 563-43-9 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

CAS# 142-82-5: Testing required by manufacturers, processors

#### Section 12b

CAS# 142-82-5: Section 4

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 142-82-5: immediate, delayed, fire.

**Section 313** No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 142-82-5 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

CAS# 563-43-9 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

#### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

F C N

#### Risk Phrases:

R 11 Highly flammable.

R 14/15 Reacts violently with water liberating extremely flammable gases.

R 35 Causes severe burns.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 65 Harmful: may cause lung damage if swallowed.

R 67 Vapours may cause drowsiness and dizziness.

**Safety Phrases:**

S 16 Keep away from sources of ignition - No smoking.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 29 Do not empty into drains.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 57 Use appropriate containment to avoid environmental contamination.

S 6A Keep under nitrogen.

S 43B In case of fire, use fire-fighting equipment on basis of sodium chloride, sodium bicarbonate (never use water).

**WGK (Water Danger/Protection)**

CAS# 142-82-5: 1

CAS# 563-43-9: 1

**Canada - DSL/NDSL**

CAS# 142-82-5 is listed on Canada's DSL List.

CAS# 563-43-9 is listed on Canada's DSL List.

**Canada - WHMIS**

WHMIS: Not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 142-82-5 is listed on the Canadian Ingredient Disclosure List.

**Section 16 - Additional Information**

**MSDS Creation Date:** 9/20/2004

**Revision #0 Date:** Original.

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*