



Material Safety Data Sheet

Diethylzinc, 15 wt.% solution in hexane

MSDS# 46190

Section 1 - Chemical Product and Company Identification

MSDS Name: Diethylzinc, 15 wt.% solution in hexane
Catalog Numbers: AC205510000, AC205510150, AC205511000, AC205511001, AC205518000
Synonyms: Zinc ethide in hexane.

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticaaan 3a
2440 Geel, Belgium

Company Identification: (USA) Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01

For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

Risk Phrases: 11 38 48/20 51/53 62 65 67

CAS#: 110-54-3
Chemical Name: Hexane
%: 85
EINECS#: 203-777-6
Hazard Symbols: F XN N

Risk Phrases: 14 17 34 50/53

CAS#: 557-20-0
Chemical Name: Diethylzinc
%: 15
EINECS#: 209-161-3
Hazard Symbols: F C N

Text for R-phrases: see Section 16

Hazard Symbols:

XN F C



Risk Phrases:

11 14 17 34 48/20

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Harmful if inhaled. Causes eye and skin burns. Causes digestive and respiratory tract burns. Pyrophoric. Spontaneously flammable in air. Reacts violently with water. Extremely flammable liquid and vapor. Vapor may cause flash fire. Target Organs: Nervous system.

Potential Health Effects

Eye: Causes eye burns.
 Skin: Causes skin burns.
 Ingestion: Causes gastrointestinal tract burns.
 Inhalation: Causes chemical burns to the respiratory tract.
 Chronic: None

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.
 Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.
 Ingestion: Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
 Inhalation: Remove from exposure and move to fresh air immediately.

Notes to Physician:

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. Extremely flammable liquid and vapor. May re-ignite after fire is extinguished. Containers may explode when heated or if contaminated with water.

Extinguishing Media: Do NOT get water inside containers. Most foams will react with the material and release corrosive/toxic gases. Cool containers with flooding quantities of water until well after fire is out. DO NOT USE WATER OR FOAM. For small fires, use dry chemical, soda ash, lime or sand.

Autoignition Temperature: Not available

Flash Point: -40 deg C (-40.00 deg F)

Explosion Limits: N/A
 Lower:

Explosion Limits: N/A
 Upper:

NFPA Rating: health: 1; flammability: 4; instability: 0;

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. Clean up spills immediately, observing precautions in the Protective Equipment section. Use a spark-proof tool. Do not get water on spilled substances or inside containers.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid ingestion and inhalation. Do not allow contact with water. Avoid mechanical shock and friction. Discard contaminated shoes. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from water. Flammables-area. Keep containers tightly closed.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Hexane	50 ppm; Skin - potential significant	50 ppm TWA; 180 mg/m3 TWA 1100 ppm IDLH (10%)	500 ppm TWA; 1800 mg/m3 TWA

	contribution to overall exposure by the cutaneous route	(LEL)	
Diethylzinc	none listed	none listed	none listed

OSHA Vacated PELs: Hexane: 50 ppm TWA; 180 mg/m3 TWA Diethylzinc: None listed

Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

Exposure Limits

Personal Protective Equipment

- Eyes: Wear safety glasses and chemical goggles if splashing is possible.
- Skin: Wear appropriate protective gloves and clothing to prevent skin exposure.
- Clothing: Wear appropriate protective clothing to minimize contact with skin.
- Respirators: Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid
Color: colorless
Odor: garlic-like odor
pH: Not available

Vapor Pressure: Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: .682 cP@20C(DZ)

Boiling Point: 117 deg C @ 760.00mm Hg(DZ) (242.60°F)

Freezing/Melting Point: -28 deg C (-18.40°F)

Decomposition Temperature: Not available

Solubility in water: reacts violently with water(DZ)

Specific Gravity/Density: .7260g/cm3(DZ)

Molecular Formula: C4H10Zn

Molecular Weight: 123.50(DZ)

Section 10 - Stability and Reactivity

- Chemical Stability: Stable under normal temperatures and pressures.
- Conditions to Avoid: Incompatible materials, strong oxidants, exposure to moist air or water.
- Incompatibilities with Other Materials: Water, oxidizing agents, acids, bases, alcohols, hydrazine, oxygen, chlorine.
- Hazardous Decomposition Products: Carbon monoxide, carbon monoxide, carbon dioxide.
- Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

- RTECS#: CAS# 110-54-3: MN9275000
CAS# 557-20-0: None listed
- RTECS:
CAS# 110-54-3: Draize test, rabbit, eye: 10 mg Mild;
Inhalation, mouse: LC50 = 150000 mg/m3/2H;
Inhalation, rat: LC50 = 48000 ppm/4H;
- LD50/LC50: Inhalation, rat: LC50 = 627000 mg/m3/3M;
Oral, rat: LD50 = 25 gm/kg;
- RTECS:
CAS# 557-20-0:

Carcinogenicity: Hexane - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Diethylzinc - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE

Hazard Class: 4.3

UN Number: UN3399

Packing Group: I

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

USA RQ: CAS# 110-54-3: 5000 lb final RQ; 2270 kg final RQ

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN F C

Risk Phrases:

R 11 Highly flammable.

R 14 Reacts violently with water.

R 17 Spontaneously flammable in air.

R 34 Causes burns.

R 48/20 Harmful : danger of serious damage to health by prolonged exposure through inhalation.

Safety Phrases:

S 9 Keep container in a well-ventilated place.

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

S 24/25 Avoid contact with skin and eyes.

S 43A In case of fire, use dry chemical (never use water).

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

WGK (Water Danger/Protection)

CAS# 110-54-3: 1

CAS# 557-20-0: Not available

Canada

CAS# 110-54-3 is listed on Canada's DSL List

CAS# 557-20-0 is listed on Canada's NDSL List

Canadian WHMIS Classifications: B2, E

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.

CAS# 110-54-3 is listed on Canada's Ingredient Disclosure List

CAS# 557-20-0 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 110-54-3 is listed on the TSCA
Inventory.

CAS# 557-20-0 is listed on the TSCA
Inventory.

Section 16 - Other Information

MSDS Creation Date: 6/03/1999

Revision #7 Date 7/20/2009

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 the company 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 the company has been advised of the possibility of such damages.
