



Website:- [chemicalbull.com](http://chemicalbull.com)

## MATERIAL SAFETY DATA SHEET

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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name : **Dibutylzinc**

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

#### 1.3 Details of the supplier of the safety data sheet

Company : **ChemicalBull Pvt Ltd**  
123/124, Panchratna, G.I.D.C  
Char Rasta, Vapi-396195  
Dist, Valsad, Gujarat, INDIA  
**Website:-** [chemicalbull.com](http://chemicalbull.com)  
**Email:-** [info@chemicalbull.com](mailto:info@chemicalbull.com)

#### 1.4 Emergency telephone

Emergency Phone : **+91 9696960250**

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation

Flammable liquids Pyrophoric liquids

Substances and mixtures which in contact with water emit flammable gases,

Skin corrosion Serious eye damage

Reproductive toxicity

Specific target organ toxicity - single exposure, Central nervous system, Specific target

organ toxicity - repeated exposure, Inhalation, Nervous system,

Aspiration hazard

Long-term (chronic) aquatic hazard

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 2.2 Label elements

### Labelling according Regulation

Pictogram



Signal word

Danger

Hazard statement(s)

H225

Highly flammable liquid and vapor.

H250

Catches fire spontaneously if exposed to air.

H260

In contact with water releases flammable gases which may ignite spontaneously.

H304

May be fatal if swallowed and enters airways.

H314

Causes severe skin burns and eye damage.

H336

May cause drowsiness or dizziness.

H361f

Suspected of damaging fertility.

H373

May cause damage to organs (Nervous system) through prolonged or repeated exposure if inhaled.

H411

Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P231 + P232

Handle and store contents under inert gas. Protect from moisture.

P280

Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

P301 + P330 + P331

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304 + P340 + P310

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P370 + P378

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Supplemental Hazard information

Reacts violently with water.

### Reduced Labeling (<= 125 ml)

Pictogram



Signal word

Danger

Hazard statement(s)

H250

Catches fire spontaneously if exposed to air.

H304

May be fatal if swallowed and enters airways.

H314

Causes severe skin burns and eye damage.

H361f

Suspected of damaging fertility.

Precautionary statement(s)

P280

Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Supplemental Hazard information

Reacts violently with water.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Synonyms	: Zincediethyl
Formula	: C <sub>4</sub> H <sub>10</sub> Zn
Molecular weight	: 123.51 g/mol

Component	Classification	Concentration
<b>n-Hexane</b>		
CAS-No. 110-54-3	Flam. Liq. 2; Skin Irrit. 2; Repr. 2; STOT SE 3; STOT RE 2; Asp. Tox. 1; Aquatic Chronic 2; H225, H315, H361f, H336, H373, H304, H411 Concentration limits: >= 5 %: STOT RE 2, H373; >= 20 %: STOT SE 3, H336;	>= 70 - < 90 %
<b>diethylzinc</b>		
CAS-No. 557-20-0	Pyr. Liq. 1; Water-react 1; Skin Corr. 1B; Eye Dam. 1; Aquatic Acute 1; Aquatic Chronic 1; H250, H260, H314, H318, H400, H410	>= 10 - < 20 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

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## **SECTION 4: First aid measures**

### **4.1 Description of first-aid measures**

#### **General advice**

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

#### **If inhaled**

After inhalation: fresh air. Call in physician.

#### **In case of skin contact**

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

#### **In case of eye contact**

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

#### **If swallowed**

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Pulmonary failure possible after aspiration of vomit. Call a physician immediately. Do not attempt to neutralise.

### **4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available

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## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>) Dry powder

#### **Unsuitable extinguishing media**

Water Foam

### **5.2 Special hazards arising from the substance or mixture**

Carbon oxides

Zinc/zinc oxides

Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

May not get in touch with: Water

Development of hazardous combustion gases or vapours possible in the event of fire.

Forms explosive mixtures with air at ambient temperatures.

### **5.3 Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

### **5.4 Further information**

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

### **6.2 Environmental precautions**

Do not let product enter drains. Risk of explosion.

### **6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material. Dispose of properly. Clean up affected area.

### **6.4 Reference to other sections**

For disposal see section 13.

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## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

#### **Advice on safe handling**

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols. Keep workplace dry. Do not allow product to come into contact with water.

#### **Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### **Hygiene measures**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

### **7.2 Conditions for safe storage, including any incompatibilities**

#### **Storage conditions**

Tightly closed. Keep away from heat and sources of ignition. Never allow product to get in contact with water during storage.

Air sensitive.

#### **Storage class**

Storage class Pyrophoric and self-heating hazardous materials

### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## **SECTION 8: Exposure controls/personal protection**

### **8.1 Control parameters**

#### **Ingredients with workplace control parameters**

### **8.2 Exposure controls**

#### **Personal protective equipment**

##### **Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as Tightly fitting safety goggles

##### **Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation

Splash contact

Material: Fluorinated rubber

Minimum layer thickness: 0,7 mm

Break through time: 60 min

If used in solution, or mixed with other substances, and under conditions which differ from, contact the supplier of the approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

##### **Body Protection**

Flame retardant antistatic protective clothing.

##### **Respiratory protection**

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type ABEK

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

##### **Control of environmental exposure**

Do not let product enter drains. Risk of explosion.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid
b) Odor	No data available
c) Odor Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available
g) Flash point	-23 °C - closed cup
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapor pressure	No data available
l) Vapor density	No data available
m) Density	0,726 g/cm <sup>3</sup>
Relative density	No data available
n) Water solubility	No data available
o) Partition coefficient:n-octanol/water	No data available
p) Autoignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available

### 9.2 Other safety information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Vapors may form explosive mixture with air.

### 10.2 Chemical stability

Sensitive to air. sensitive to moisture

### 10.3 Conditions to avoid

Exposure to air.  
Warming.  
Moisture.

### 10.4 Incompatible materials

Oxidizing agents, Strong oxidizing agents, Reacts violently with water.

### 10.5 Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Mixture

#### Acute toxicity

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

Dermal: No data available

#### Skin corrosion/irritation

Mixture causes burns.

#### Serious eye damage/eye irritation

Mixture causes serious eye damage. Risk of blindness!

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

No data available

#### Reproductive toxicity

Evidence to impair fertility.

#### Specific target organ toxicity - single exposure

Mixture may cause drowsiness or dizziness.

#### Specific target organ toxicity - repeated exposure

Mixture may cause damage to organs through prolonged or repeated exposure. - Nervous system

#### Aspiration hazard

Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis.

### 11.2 Additional Information

Warning: contains n-hexane a suspected neurotoxin., 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

Other dangerous properties cannot be excluded.



This substance should be handled with particular care.

Handle in accordance with good industrial hygiene and safety practice.

## **Components**

### **n-Hexane**

#### **Acute toxicity**

LD50 Oral - Rat - male and female - 16.000 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - 4 h - 172 mg/l

Remarks: (RTECS)

LD50 Dermal - Rabbit - male - > 2.000 mg/kg

(OECD Test Guideline 402)

Remarks: (ECHA)

#### **Skin corrosion/irritation**

Skin - Rabbit

Result: Skin irritation - 24 h

(OECD Test Guideline 404)

#### **Serious eye damage/eye irritation**

Eyes - Rabbit

Result: No eye irritation - 72 h

(OECD Test Guideline 405)

#### **Respiratory or skin sensitization**

Local lymph node assay (LLNA) - Mouse

Result: negative

(OECD Test Guideline 429)

#### **Germ cell mutagenicity**

No data available

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Species: Mouse - male

Result: negative

Remarks: (ECHA)

#### **Carcinogenicity**

No data available

#### **Reproductive toxicity**

Overexposure may cause reproductive disorder(s) based on tests with laboratory

animals. Suspected human reproductive toxicant Suspected of damaging fertility.

Suspected of damaging fertility.

#### **Specific target organ toxicity - single exposure**

May cause drowsiness or dizziness. - Central nervous system

Remarks: Classified according to Regulation

**Specific target organ toxicity - repeated exposure**

Inhalation - May cause damage to organs through prolonged or repeated exposure.

- Nervous system

Remarks: Classified according to Regulation

**Aspiration hazard**

May be fatal if swallowed and enters airways. Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis.

**diethylzinc****Acute toxicity**

Oral: No data available

Inhalation: No data available

Dermal: No data available

**Skin corrosion/irritation**

Causes skin burns.

**Serious eye damage/eye irritation**

Causes serious eye damage.

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

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**SECTION 12: Ecological information****12.1 Toxicity****Mixture**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 12.6 Other adverse effects

No data available

### Components

#### n-Hexane

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 2,5 mg/l - 96 h  
Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 2,1 mg/l - 48 h  
Remarks: (Lit.)

#### diethylzinc

No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

See for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 3399

IMDG: 3399

IATA: 3399

### 14.2 UN proper shipping name

ADR/RID: ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE (diethylzinc, n-Hexane)

IMDG: ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE (diethylzinc, n-Hexane)

IATA: Organometallic substance, liquid, water-reactive, flammable (diethylzinc, n-Hexane)

Passenger Aircraft: Not permitted for transport

### 14.3 Transport hazard class(es)

ADR/RID: 4.3 (3)

IMDG: 4.3 (3)

IATA: 4.3 (3)

### 14.4 Packaging group

ADR/RID: I

IMDG: I

IATA: I

### 14.5 Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

IATA: no

### 14.6 Special precautions for user

No data available

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## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation

#### National legislation

Seveso of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

: ENVIRONMENTAL HAZARDS

: OTHER HAZARDS

: OTHER HAZARDS

#### Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir national regulations where applicable.

Take note on the protection of young people at work.

### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

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## SECTION 16: Other information

### Full text of H-Statements referred to under sections 2 and 3.

EUH014	Reacts violently with water.
H225	Highly flammable liquid and vapor.
H250	Catches fire spontaneously if exposed to air.
H260	In contact with water releases flammable gases which may ignite spontaneously.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.

### Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. **ChemicalBull Pvt Ltd** and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

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