



INTATRADE  
MATERIAL SAFETY DATA SHEET  
according to 1907/2006/EC, Article 31

Printed: 21.03.2022

## 1. IDENTIFICATION OF SUBSTANCE AND OF THE COMPANY

Product name: **Dichloro[*rac*-ethylenebis(indenyl)]zirconium(IV)**  
Product code: EO03592  
Company: INTATRADE Chemicals GmbH  
Am Winkel 5  
06774 Muldestausee, Germany  
Phone: +49 34955/406944  
Fax: +49 34955/406946  
e-mail: [intatrade@intatrade.de](mailto:intatrade@intatrade.de)

## 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture  
GHS label elements

Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.



Hazard pictograms  
Signal word  
Hazard statements

### Warning

Precautionary statements

H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
P231 Handle under inert gas.  
P222 Do not allow contact with air.  
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P422 Store contents under inert gas.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:  
NFPA ratings (scale 0 - 4)

Health = 1  
Fire = 0  
Reactivity = 0

HMIS-ratings (scale 0 - 4)

Health = 1  
Fire = 0  
Reactivity = 0

Other hazards  
PBT:  
vPvB:

Results of PBT and vPvB assessment  
Not applicable.  
Not applicable.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No. 100080-82-8

---

## 4. FIRST-AID MEASURES

Description of first aid measures

After inhalation:	In case of unconsciousness place patient stably in side position for transportation.
After skin contact:	Immediately wash with water and soap and rinse thoroughly.
After eye contact:	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing:	If symptoms persist consult doctor.
Information for doctor:	Most important symptoms and effects, both acute and delayed – No further relevant information available. Indication of any immediate medical attention and special treatment needed - No further relevant information available.

---

## 5. FIRE-FIGHTING MEASURES

Extinguishing media	
Suitable extinguishing agents:	Use fire fighting measures that suit the environment.
Special hazards arising from the substance or mixture	No further relevant information available.
Advice for firefighters	
Protective equipment:	No special measures required.

---

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Not required.
Environmental precautions:	No special measures required.
Methods and material for containment and cleaning up:	Dispose contaminated material as waste according to item 13..
Reference to other sections	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.
Protective Action Criteria for Chemicals	
PAC-1:	Substance is not listed.
PAC-2:	Substance is not listed.
PAC-3:	Substance is not listed.

---

## 7. HANDLING AND STORAGE

Handling:	Handle under inert gas.
Precautions for safe handling	Open and handle receptacle with care.
Information about protection against explosions and fires:	No special measures required.
Conditions for safe storage, including any incompatibilities	
Storage:	Store contents under inert gas.
Requirements to be met by storerooms and receptacles:	No special requirements.
Information about storage in one common storage facility:	Not required.
Further information about storage conditions:	Keep receptacle tightly sealed. Store in cool, dry conditions in well sealed receptacles.
Specific end use(s)	No further relevant information available.

---

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems:	No further data; see item 7.
Control parameters	Components with limit values that require monitoring at the workplace: Not required.

Additional information:	The lists that were valid during the creation were used as basis.
Exposure controls	Personal protective equipment:
General protective and hygienic measures:	Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.
Breathing equipment:	Not required.
Protection of hands:	
Protective gloves	The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Material of gloves	The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Penetration time of glove material	The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection:	Tightly sealed goggles

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### General Information

Appearance:	
Form:	Powder
Color:	Light orange color
Odor:	Acidic
Odor threshold:	Not determined.
pH-value:	Not applicable.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	Not applicable.
Flammability (solid, gaseous):	Not determined.
Ignition temperature:	
Decomposition temperature:	Not determined.
Auto igniting:	Not determined.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure:	Not applicable.
Density:	Not determined.
Relative density	Not determined.
Vapor density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
Water:	Insoluble.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
Solvent content:	
Organic solvents:	0.0 %
VOC content:	0.0 g/l / 0.00 lb/gl
Solids content:	100.0 %
Other information	No further relevant information available.

---

## 10. STABILITY AND REACTIVITY

Reactivity	No further relevant information available.
Chemical stability	Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Possibility of hazardous reactions	No dangerous reactions known.
Conditions to avoid	No further relevant information available.
Incompatible materials:	No further relevant information available.
Hazardous decomposition products:	No dangerous decomposition products known.

---

## 11. TOXICOLOGICAL INFORMATION

Acute toxicity:	
Primary irritant effect:	
on the skin:	Irritant to skin and mucous membranes.
on the eye:	Irritating effect.
Sensitization:	No sensitizing effects known.
Additional toxicological information:	
Carcinogenic categories	IARC (International Agency for Research on Cancer) Substance is not listed. NTP (National Toxicology Program) Substance is not listed. OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

---

## 12. ECOLOGICAL INFORMATION

Toxicity	
Aquatic toxicity:	No further relevant information available.
Persistence and degradability	No further relevant information available.
Behavior in environmental systems:	
Bioaccumulative potential	No further relevant information available.
Mobility in soil	No further relevant information available.
Additional ecological information:	
General notes:	Not known to be hazardous to water.
Results of PBT and vPvB assessment	
PBT:	Not applicable.
vPvB:	Not applicable.
Other adverse effects	No further relevant information available.

---

## 13. DISPOSAL CONSIDERATIONS

Waste treatment methods	
Recommendation:	Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Uncleaned packagings:	Recommendation: Disposal must be made according to official regulations.

---

## 14. TRANSPORT INFORMATION

UN-Number	
DOT, ADN, IMDG, IATA	not regulated
UN proper shipping name	
DOT, ADN, IMDG, IATA	not regulated
Transport hazard class(es)	
DOT, ADN, IMDG, IATA	Class not regulated
Packing group	
DOT, IMDG, IATA	not regulated

Environmental hazards:	Marine pollutant: No
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
UN "Model Regulation":	not regulated

---

## 15. REGULATORY INFORMATION

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

Section 355 (extremely hazardous substances):  
Substance is not listed.  
Section 313 (Specific toxic chemical listings):  
Substance is not listed.

TSCA (Toxic Substances  
Control Act):  
Proposition 65

Substance is not listed.  
Chemicals known to cause cancer:  
Substance is not listed.  
Chemicals known to cause reproductive toxicity for females:  
Substance is not listed.  
Chemicals known to cause reproductive toxicity for males:  
Substance is not listed.  
Chemicals known to cause developmental toxicity:  
Substance is not listed.

Carcinogenic categories

EPA (Environmental Protection Agency)  
Substance is not listed.  
TLV (Threshold Limit Value established by ACGIH)  
Substance is not listed.  
NIOSH-Ca (National Institute for Occupational Safety and Health)  
Substance is not listed.

---

## 16. OTHER 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. Intatrade Chemicals GmbH shall not be held liable for any damage resulting from handling or from contact with the above product.