

## Material Safety Data Sheet ( MSDS ) mi-CZ100

### 1. Identification of substance

- Product details
- Product name : mi-Total Reagent (mi-CZ100)
- Supplier : metabion international AG
- Supplier address: metabion international AG, Lena-Christ-Str. 44 ,  
82152 Planegg-Martinsried, Germany
- **In case of emergency contact: +49 (6131) 19240**  
**Poison Information Center Mainz, Germany**

### 2. Composition/Data on components

- Chemical characterization
- Description: Mixture of the substances listed below with non-hazardous additions.  
Dangerous components: Void

Product Component	Components	Quantity
mi-Total Reagent	Liquid N2 (for tissue extraction)	
Saturated phenol (pH 4.5)		
RNase-free water		100 ml

### 3. Hazards identification

- Hazard description: Irritant, acidic (pH 3-4)
- Information pertaining to particular dangers for man and environment:
- Not applicable.
- Classification system:  
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- NFPA ratings (scale 0 - 4)  
Health = 1  
Fire = 0  
Reactivity = 0
- WHMIS-ratings (scale 0 - 4)  
Health = 1  
Fire = 0  
Reactivity = 0

### 4. First aid measures

- General information: No special measures required.
- After inhalation: : If breathing becomes difficult, remove victim to fresh air. Seek medical assistance immediately
- After skin contact: If skin contact occurs, wash with water and remove contaminated clothing. If contact with product leads to continued reddening, inflammation after rinsing with water, get medical attention.
- After eye contact: Flush eyes with large volumes of water for at least 15 minutes. Get medical attention immediately.
- After swallowing: Immediately call a doctor.

### 5. Fire fighting measures

- Suitable extinguishing agents:  
Dry chemical, sandy soil, chemical foam or carbon dioxide.
- Protective equipment:  
Do not inhale explosion gases or combustion gases.

## 6. Accidental release measures

- Person-related safety precautions: Wear appropriate personal protective clothing.
- Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.
- Measures for cleaning/collecting: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, and sawdust).

## 7. Handling and storage

- Handling: Store in a cool, well-ventilated area. Keep away from ignition sources, heat and flame. Store in tightly closed container. Incompatibilities: oxidants and food.
- Information for safe handling: Keep receptacles tightly sealed.
- Information about protection against explosions and fires: No special measures required.
- Storage: 4°C
- 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: None.
- Class according to regulation on flammable liquids: Void

## 8. Exposure controls and personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Components with limit values that require monitoring at the workplace:  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information:  
The lists that were valid during the creation were used as basis.
- Personal protective equipment: Wear appropriate body protection to prevent skin contact.
- General protective and hygienic measures: Good laboratory technique should be used when handling this product. Observe appropriate chemical hygiene. Avoid contact with skin or eyes. Do not place in mouth. Do not eat, drink or smoke while working with product. Upon completion of work activities involving this product, wash hands thoroughly with soap and water.
- Breathing equipment: Respiratory protection is not required under normal use of this product.
- Protection of hands: Protective gloves
- Eye protection: Wear appropriate body protection to prevent eye contact.

## 9. Physical and chemical properties

- Form: Fluid
- Color: According to product specification
- Odor: Characteristic
- Value/Range Unit Method
- Change in condition : Undetermined.
- Melting point/Melting range: Undetermined.
- Boiling point/Boiling range: Undetermined.
- Flash point: Not applicable.
- Auto igniting: Product is not self-igniting.
- Danger of explosion: None.
- Vapor pressure: at 20 ° C 23 hPa
- Density: at 20 ° C 0.99 g/cm
- Solubility in / Miscibility with Water: Fully miscible.
- pH-value: at 20 ° C 8.0

## 10 Stability and reactivity

Stable under normal handling and storage conditions.

- Thermal decomposition / conditions to be avoided:  
No decomposition if used according to specifications.
- Dangerous reactions: Reacts with acids, alkalis and oxidizing agents.
- Dangerous products of decomposition: The substance does not belong to toxic substances. The substance is irritant, so it is classified in class 9.

### 11 Toxicological information

- Acute toxicity: None
- Primary irritant effect: None
- On the skin: Irritant to skin and mucous membranes.
- On the eye: Irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information: The substance is irritant, so it is classified in class 9.

### 12. Ecological information

- General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 13. Disposal considerations

- Product:

- 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.

- Recommended cleansing agent: Water, if necessary with cleansing agents.

### 14. Transport information

- DOT regulations:

- Hazard class: -

- Land transport ADR/RID (cross-border):

- ADR/RID class: -

- Maritime transport IMDG:

- IMDG Class: -

- Marine pollutant: No

- Air transport ICAO-TI and IATA-DGR:

- ICAO/IATA Class: Not Dangerous

### 15. Regulations

TSCA (Toxic Substances Control Act): All ingredients are listed.

- Proposition 65

Chemicals known to cause cancer: None of the ingredients is listed.

Chemicals known to cause reproductive toxicity: None of the ingredients is listed.

- Product related hazard information:

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations according to directives on hazardous materials.

- National regulations:

- Classification according to VbF: Void

- Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

### 16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.