

## MATERIAL SAFETY DATA SHEET

### ZChek -9D Red

Prepared according to the Hazard Communication Standard (CFR 29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015  
Prepared: Oct-22 Supersedes: 03

#### Section 1: Product and Company Identification

**1.1 Product Name:** ZChek- 9D Red

**1.2 Product Use:** Non-Destructive Testing.

**1.3 Manufacturer Information:** ZChem Specialities Private Limited.

Sy. No.11/2/6, Puradapalya Village Tavarekere Hobli, Bangalore,Karnataka-562130, India

**Website:** [www.zchem.in](http://www.zchem.in)

**Emergency Telephone Number:** +91-9959963334

#### Section 2: Hazards Identification

**2.1 Hazards Classification:** Not classified

**2.2 Label elements**

**2.3 Hazard pictogram:** None

**2.5 Hazard statement:**

May form combustible dust concentrations in air.

**2.6 Precautionary statement**

- Avoid to release to the environment.
- Wash skin thoroughly after handling.
- Keep container tightly closed.

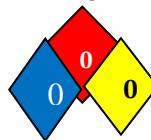
**2.7 Classification system**

HMIS- ratings (scale 0-4)

<b>Health -0</b>
<b>Fire -0</b>
<b>Reactivity -0</b>

NFPA-rating

Fire- 1  
Health-1  
Reactivity-0



**2.8 Other hazards**

Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable



### Section 3 – Information on Ingredients

Ingredient	CAS#	Wt/wt%
Iron	7439-89-6	90-95%
Iron oxide	1309-37-1	5-10 %

### Section 4 –First Aid Measures

**Inhalation:** Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, seek medical attention immediately.

**Skin:** Remove contaminated shoes and clothing. Clean affected area thoroughly with mild soap and water. DO NOT use ointments. Seek medical attention if irritation persists.

**Eyes:** Rinse carefully using plenty of water.

**Ingestion:** DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. DO NOT leave victim unattended. Seek medical attention immediately.

### Section 5: Fire Fighting Measures

#### 5.1 Extinguishing media

**Suitable extinguisher agents:**

- Water spray or Fog
- ABC Powder

**For safety reasons unsuitable extinguishing agents :** Water with full jet.

**5.2 Special hazards arising from the substance or mixture** Explosion hazards: Avoid generating dust dispersed in air insufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard.

#### 5.3 Advice for fire fighters

**Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

### Section 6: Accidental Release Measures

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

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

**6.2 Environmental precautions:** Do not allow to enter sewers, surfaces or ground water.

#### 6.3 Methods and material for containment and cleaning up:

- ELIMINATE all ignition sources & Avoid dispersal of dust in the air.
- Sweep up material and place in a clearly labeled container for waste. Dispose as per local regulation.
- Never return spills to original container for re-use.
- Avoid discharge in to drains, water courses or on to ground.



## Section 7: Handling and Storage

### 7.1 Prevention for safe handling:

- DO NOT allow material to come in contact with eyes or skin. Wear appropriate protective equipment during handling. Keep container closed. Avoid breathing vapors or mists. Use only with adequate ventilation. Wash thoroughly after handling.
- Protect against electrostatic charges.
- Use explosion-proof apparatus/fittings and spark-proof tools.

### 7.2 Conditions for safe Storage:

- Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials. Keep away from heat.

## Section 8: Exposure Controls and Personal Protection

### 8.1 Control Parameters

#### Iron(7439-89-6)

ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	5mg/m <sup>3</sup> /8h(as iron oxide, dust and fumes)
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> /8h(as iron oxide ,fumes)
NIOSH	NIOSH REL (TWA)(mg/m <sup>3</sup> )	5mg/m <sup>3</sup> /10h(as iron oxide, dust and fumes)

#### Iron oxide (1309-37-1)

ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	5mg/m <sup>3</sup> /8h(respirable fraction)
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> /8h(fume) 15mg/m <sup>3</sup> (total dust) 5mg/m <sup>3</sup> (respirable fraction)
IDLH	US IDLH(mg/m <sup>3</sup> )	2500 mg/m <sup>3</sup> (dust and fumes)
NIOSH	NIOSH REL (TWA)(mg/m <sup>3</sup> )	5mg/m <sup>3</sup> /10h(dust and fumes)

### 8.2. Exposure Controls

**Engineering Controls:** Provide general and/or local exhaust ventilation to keep exposures below the exposure guidelines mentioned above.

**Personal protection:** Wear safety glasses to protect eyes. Wear nitrile rubber gloves if hand exposure is unavoidable. Respirator with filter if sprayed in enclosed unventilated space.



**General Hygiene Considerations:** Wash thoroughly after handling. Have eye-wash facilities immediately available.



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## Section 9: Physical and Chemical Properties

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Appearance:  
Form : Powder  
Color: Red  
Odor: Odorless  
Odor threshold: No data available  
pH value: No data available  
Melting point: No data available  
Boiling point: No data available  
Flammability (solid, gaseous)- No data available  
Flash point: No data available  
Ignition temperature: No data available  
Decomposition temperature: No data available  
Auto-ignition temperature- No data available  
Danger of explosions: No data available  
Evaporation rate: No data available  
Solubility /miscibility with water: No data available  
Partition Coefficient: No data available  
Viscosity:  
Dynamic- Not relevant  
Viscosity- Not relevant

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## Section 10: Stability and Reactivity

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**Stability:** Stable under normal conditions.  
**Conditions to Avoid:** Heat, Incompatible materials, Avoid dust formation.  
**Incompatibility:** Strong oxidizing agents.  
**Hazardous Decomposition:** No hazardous decomposition products are known  
**Reactivity:** None

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## Section 11: Toxicological Information

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### 11.1 Routes of exposure

**Ingestion :** Expected to be a low ingestion hazard.  
**Inhalation:** Inhalation of dusts may cause respiratory irritation.  
**Skin Contact:** Dust or powder may irritate the eyes.  
**Eye Contact :** Dust may cause eye, skin and respiratory tract irritation.  
**Acute toxicity:** Not classified.

Iron (7439-89-6)	Test Results
LD 50 oral rat	7500 mg/kg
Iron oxide (1309-37-1)	Test Results
LD 50 oral rat	>5000 mg/l
LD 50 dermal rat	5500 mg/kg

### Primary irritant effect

- Skin: No irritant effect.
- Eye: Irritating effect
- Sensitization: No sensitizing effects known
- Germ cell mutagenicity: No data available.



- Reproductive toxicity-This product is not expected to cause reproductive or developmental effects.
- Specific target organ toxicity (single exposure)-Not classified.
- Specific target organ toxicity (repeated exposure)-Not classified
- Aspiration hazard- Not an aspiration hazard
- Chronic effect- Prolonged inhalation may be harmful

### Carcinogenic categories

<b>IARC(International Agency for Research of Cancer)</b> - None of the ingredients listed
<b>ACGIH (American Conference for Industrial Hygienists)</b> - None of the ingredients listed
<b>NTP (National Toxicology Program)</b> – None of the ingredients listed
<b>OSHA-Ca (Occupational Safety and Health Administration)</b> -None of the ingredients is listed

## Section 12: Ecological Information

**12.1.Ecology:** General: May cause long term adverse effect in the aquatic environment.

**12.2. Persistence and degradability:** No further relevant information available.

**12.3. Bioaccumulative potential:** No further relevant information available

**12.4. Mobility in soil:** No further information available.

## Section 13: Disposal Considerations

### 13.1. Waste treatments methods

Recommendation:

- Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Waste/unused products
- Collect all waste in suitable and labeled containers and dispose according to local legislation.

### 13.2. Un-cleaned packaging's:

Recommendation:

Waste/used products

Waste products and empty packages dispose of in accordance with local regulations..

## Section 14: Transport Information

<b>14.1 UN -Number</b>	
DOT, ADR,IMDG,IATA	Not regulated
<b>14.2 UN proper shipping name</b>	
<ul style="list-style-type: none"> <li>• DOT -</li> <li>• ADR, IMDG,IATA</li> </ul>	Not regulated





<b>14.3 Transport Hazard class(es)</b> DOT ,ADR,IMDG,IATA	Not regulated
<b>14.4 Packing group</b> DOT,ADR,IMDG,IATA	Not regulated
<b>14.5 Environmental hazards</b> Marine pollutant	Not regulated
<b>14.6 Special precautions for user</b>	Not regulated
<b>Transport in bulk according to Annex ii of MARPOL 73/78 and the IBC Code</b>	Not regulated

## Section 15: Regulatory Information

### 15.1 Safety, Health and Environmental Regulations/ Legislation specific for the substance or mixture.

- **Section 313** (Specific toxic chemical listings); None of the ingredient is listed.
- **Section 311/312** : None of the ingredient is listed.
- All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substance Control Act (TSCA) inventory.
- **US OSHA Specifically Regulated substance (29 CFR 1910.1001-1050)**-Not listed
- **Chemicals Known to cause cancer:** None of the ingredients is listed
- **Carcinogenicity Categories**
- **EPA (Environmental Protecting Agency)** –None of the ingredients listed.
- **NIOSH (National Institute For Occupational Safety And Health)**-None of the ingredients is listed.

**15.2 Chemical safety assessment:-** A Chemical Safety Assessment has not been carried out.

Note: This MSDS has been prepared to meet WHMIS 2015 (Canada) requirements.

## Section 16: Other Information

**Disclaimer** To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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