

MATERIAL SAFETY DATA SHEET

ZChek – F18

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- F18

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

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Section 2: Hazards Identification

2.1 Hazards Classification: Combustible dust

2.2 Label elements

2.3 Hazard pictogram: None

2.4 Signal word:

Warning

2.5 Hazard statement:

May form combustible dust concentrations in air.

2.6 Precautionary statement

- Avoid to release to the environment.
- Keep away from heat, sparks, open flames, hot surfaces. No smoking
- If in eyes- rinse cautiously with water for several minutes.
- Wash skin thoroughly after handling.
- Keep container tightly closed.

2.7 Classification system

HMIS- ratings (scale 0-4)

Health -2
Fire -0
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 oxide	7439-89-6	90-95%

Section 4 – First Aid Measures

4.1. Description Of 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.

4.2. Most Important Symptoms And Effects, Both Acute and Delayed

Symptoms/injuries after inhalation: May cause respiratory irritation.

Symptoms/injuries after skin contact: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Symptoms/injuries after eye contact: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Symptoms/injuries after ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

4.3. Indication of any immediate Medical Attention And Special Treatment Needed:

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately.

Section 5: Fire Fighting Measures

5.1 Extinguishing media

Suitable extinguisher agents:

- CO₂, sand, extinguishing powder. Do not use water.
- Water fog
- Foam
- 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, sparks and open flame.

Section 8: Exposure Controls and Personal Protection

8.1 Control Parameters

ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³ (inhalable particles) 3 mg/m ³ (respirable particles)
OSHA	OSHA PEL (TWA) mg/m ³	15 mg/m ³ (total dust) 5 mg/m ³ (respirable particles)

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.



Section 9: Physical and Chemical Properties

Appearance:
Form : Powder
Color: Brown
Odor: Characteristics
Odor threshold: No data available
pH value: No data available
Melting point: >1000°C (>1832 °F)
Boiling point: No data available
Flammability (solid, gaseous)- Combustible dust
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

Section 10: Stability and Reactivity

Stability: Stable.

Conditions to Avoid: Heat, Incompatible materials, Avoid dust formation.

Incompatibility: Strong oxidizing agents.

Hazardous Decomposition: No hazardous decomposition products are known

Reactivity: None

Section 11: Toxicological Information

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.

Ingredient	IDLH	LC 50	LD 50
Iron oxide	500 mg Mn/m ³	Not available	Oral>9000 mg/kg,rat

Primary irritant effect

- Skin: No irritant effect.
- Eye: Irritating effect
- Sensitization: No sensitizing effects known
- Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.



- 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

IARC(International Agency for Research of Cancer) - None of the ingredients listed
ACGIH (American Conference for Industrial Hygienists) - None of the ingredients listed
NTP (National Toxicology Program) – None of the ingredients listed
OSHA-Ca (Occupational Safety and Health Administration) -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. Bio-accumulative 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

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



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

Section 15: Regulatory Information

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

- **Section 302(extremely hazardous substances)**; None of the ingredient is listed.
- **Section 313** (Specific toxic chemical listings): None of the ingredient is listed.
- **Section 311/312 hazardous chemical**: Yes
- **TSCA (Toxic Substance Control Act)**: Materials on inventory
- **Proposition 65**
- **US OSHA Specifically Regulated substance (29 CFR 1910.1001-1050)**-Not listed
- **Chemicals Known to cause cancer**: None of the ingredients is listed
- **Chemicals known to cause reproductive toxicity for females**: None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity for males**: None of the ingredients is listed.
- **Chemicals known to cause developmental toxicity**: 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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