

Material Safety Data Sheet

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2024)

ZChek- F9

Section 1: Product and Company identification

1.1 Product Name: ZChek- F9**1.2 Product Use:** Magnetic Particle Inspection Process.**1.3 Manufacturer Information:** ZChem Specialities Private Limited.

Sy No11/2/6, Puradapalya village, Tavarekere Hobli Bangalore, Karnataka-562130, India

1.4 Supplier: ZChem Specialities USA LLC

1115 E cottonwood Ln, Suite 150, Casa Grande, AZ 851

1.5 Emergency Telephone Number: +91-9959963334

Section 2: Hazards Identification

OSHA/HCS STATUS

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

This classification is based on the product as sold (in powder form).

This classification is not applicable after the product is mixed with a liquid.

2.2. Label Elements

Hazard pictogram(s) : Not applicable.

Signal word : Warning

Hazard statement(s) :

Precautionary :

General : -

Prevention : -

Response : -

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Disposal : -

Hazards not otherwise classified (HNOC) : May form combustible dust concentrations in air.

2.3.OTHER HAZARDS

Section 3: Information and Ingredients

3.1. SUBSTANCES

Not applicable. This product is a mixture.

3.2. MIXTURES

Does not contain any substances required to report

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

OTHER INFORMATION

Section 4: First Aid Measures

4.1. DESCRIPTION OF FIRST AID MEASURES

General information : If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid). Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation : Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact : Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

Eye contact : If in eyes: Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Remove contact lenses. Seek medical assistance and continue flushing during transport.

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- Ingestion : If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.
- Burns : Not applicable.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

High amounts of dust can cause coughing and general irritation of the respiratory airways.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically.

INFORMATION TO MEDICS

Bring this safety data sheet or the label from this product

Section 5: Fire Fighting Measures

5.1. EXTINGUISHING MEDIA

Suitable extinguishing media : Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media : Waterjets should not be used, since they can spread the fire.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Explosion: Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire extinguishing water to enter the sewage system and nearby surface waters.

5.3. ADVICE FOR FIREFIGHTERS

No specific requirements.

Section 6: Accidental Release Measures

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Contaminated areas may be slippery.

6.2. ENVIRONMENTAL PRECAUTIONS

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

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6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, Vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. REFERENCE TO OTHER SECTIONS

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

Section 7: Handling and Storage

7.1 PRECAUTIONS FOR SAFE HANDLING

May form combustible dust concentrations in air. Take action to prevent static discharges.

Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection..

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Avoid the suspension of dust in the air.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking. Use non-sparking tools.

Recommended storage material : Keep only in original packaging.

Storage conditions : 10 - 30°C

Incompatible materials : Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. SPECIFIC END USE(S)

This product should only be used for applications quoted in section 1.2.

Section 8: Exposure Control

8.1. CONTROL PARAMETERS

No substances are listed with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1)

8.2. EXPOSURE CONTROLS

Apply general control to prevent unnecessary exposure

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- General recommendations** : When transferring the materials, dust clouds should be kept at an absolute minimum. Handling should be slow and deliberate. The materials should be transferred from one container to another using a non-sparking, conductive metal scoop. When mixing the material with other dry ingredients, frictional heat should be avoided. The best type of mixer for a dry mixing operation is one that contains no moving parts, but rather affects a tumbling action, such as a conical blender. Introduction of an inert atmosphere in the blender is highly recommended since dust clouds are generated. All equipment must be well grounded. Smoking, drinking and consumption of food is not allowed in the work area.
- Exposure scenarios** : There are no exposure scenarios implemented for this product.
- Exposure limits** : Occupational exposure limits have not been defined for the substances in this product.
- Appropriate technical measures** : Airborne gas and dust concentrations must be kept at a minimum. Provide efficient mechanical ventilation. If not possible use suitable respiratory equipment. It is recommended that all dust control equipment such as local exhaust ventilation contain an explosion suppression system.
- Hygiene measures** : In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.
- Measures to avoid environmental exposure** : No specific requirements.

INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT

Generally : Use only protective equipment with a recognized certification mark.
e.g. the UL mark.

Respiratory Equipment : No specific requirements

Skin protection :

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	

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Hand protection :

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0,38	> 480	EN374-2, EN374-3, EN388	

Eye protection :

Type	Standards	
Safety glasses	EN166	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Powder
Color	: Green
Odor	: None
Odor threshold (ppm)	: No data available
pH	: No data available
Density (g/cm ³)	: No data available.
Relative density	: No data available.
Kinematic viscosity	: No data available.
Particle characteristics	: Particle size: 10-20 µm

PHASE CHANGES

Melting point/freezing point (°F)	: No data available
Softening point/range (°F)	: Does not apply to liquids.
Boiling point (°F)	: No data available
Vapor pressure	: No data available
Relative vapor density	: No data available
Decomposition temperature (°F)	: No data available

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DATA ON FIRE AND EXPLOSION HAZARDS

Flash point (°F)	: No data available
Flammability (°F)	: The material is ignitable.
Auto-ignition temperature (°F)	: No data available
Explosion limits (% v/v)	: No data available

SOLUBILITY

Solubility in water	: Insoluble
n-octanol/water coefficient (LogKow)	: No data available
Solubility in fat (g/L)	: No data available

9.2. OTHER INFORMATION

Formation of explosible dust/air mixtures	: Yes
Evaporation rate (n butylacetate = 100)	: No data available
Other physical and chemical parameters	No data available
Oxidizing properties	: No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

No data available.

10.2. CHEMICAL STABILITY

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. POSSIBILITY OF HAZARDOUS REACTIONS, INCLUDING THOSE ASSOCIATED WITH FORESEEABLE EMERGENCIES

None known.

10.4. CONDITIONS TO AVOID

None known.

10.5. INCOMPATIBLE MATERIALS

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

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10.6. HAZARDOUS DECOMPOSITION PRODUCTS

Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. INFORMATION ON TOXICOLOGICAL EFFECTS****ACUTE TOXICITY**

Product/substance : 2-hydroxynaphthalene-1-carbaldehyde [(2-hydroxy-1 naphthyl)methylene]hydrazone
Species : Rat
Route of exposure : Oral
Test : LD50
Result : >4600 mg/kg

SKIN CORROSION/IRRITATION

Based on available data, the classification criteria are not met.

SERIOUS EYE DAMAGE/IRRITATION

Based on available data, the classification criteria are not met.

RESPIRATORY SENSITISATION

Based on available data, the classification criteria are not met.

SKIN SENSITISATION

Based on available data, the classification criteria are not met.

GERM CELL MUTAGENICITY

Based on available data, the classification criteria are not met.

CARCINOGENICITY

Based on available data, the classification criteria are not met.

REPRODUCTIVE TOXICITY

Based on available data, the classification criteria are not met.

STOT-SINGLE EXPOSURE

Based on available data, the classification criteria are not met.

STOT-REPEATED EXPOSURE

Based on available data, the classification criteria are not met.

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ASPIRATION HAZARD

Based on available data, the classification criteria are not met.

LONG TERM EFFECTS

None known.

OTHER INFORMATION

None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

Product/substance	: 2-hydroxynaphthalene-1-carbaldehyde [(2-hydroxy-1 naphthyl)methylene]hydrazone
Test method	: OECD 202
Species	: Daphnia, Daphnia magna
Duration	: 48 hours
Test	: EC50
Result	: >100 mg/L

Product/substance	: 2-hydroxynaphthalene-1-carbaldehyde [(2-hydroxy-1 naphthyl)methylene]hydrazone
Species	: Algae
Duration	: 48 hours
Test	: EC50
Result	: 2.744 mg/L

Product/substance	: 2-hydroxynaphthalene-1-carbaldehyde [(2-hydroxy-1 naphthyl)methylene]hydrazone
Test method	: OECD 209
Compartment	: Activated Sludge Plant
Duration	: 3 hours
Test	: EC20
Result	: >1000 mg/L

12.2. PERSISTENCE AND DEGRADABILITY

Based on available data, the classification criteria are not met.

12.3. BIOACCUMULATIVE POTENTIAL

Based on available data, the classification criteria are not met.

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12.4. MOBILITY IN SOIL

No data available.

12.5. RESULTS OF PBT AND VPVB ASSESSMENT

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. OTHER ADVERSE EFFECTS

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

RCRA HAZARDOUS WASTE ("P" AND "U" LIST) (40 CFR 261)

None of the components are listed

SPECIFIC LABELLING

CONTAMINATED PACKING

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: TRANSPORT INFORMATION

	UN / ID	UN proper shipping name	Hazard class(es)	PG*	Env**	Other information:
DOT	-	Not regulated for transport	Transport hazard class: Not regulated for transport (<450L per volume)	-	No	See below for additional information.
IMDG	-	Not regulated for transport	Transport hazard class: Not regulated for transport (<450L per volume)	-	No	See below for additional information.
IATA	-	Not regulated for transport	Transport hazard class: Not regulated for transport (<450L per volume)	-	No	See below for additional information.

* Packing group

** Environmental hazards

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ADDITIONAL INFORMATION

Not dangerous goods according to ADR, IATA and IMDG.

DOT / See - 172.101 Hazardous Materials Table for any information on special provisions, requirements, or warnings in connection with transport.

See - 172.602, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

14.1. SPECIAL PRECAUTIONS FOR USER

Not applicable.

14.2. TRANSPORT IN BULK ACCORDING TO IMO INSTRUMENTS

No data available.

SECTION 15: REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

15.2. U.S. FEDERAL REGULATIONS

TSCA (the non-confidential portion):	2-hydroxynaphthalene-1-carbaldehyde [(2-hydroxy-1 naphthyl)methylene]hydrazone is listed
Clean Air Act:	None of the components are listed
EPCRA Section 302	None of the components are listed
EPCRA Section 304:	None of the components are listed
EPCRA section 313:	None of the components are listed
CERCLA:	None of the components are listed
Hazardous chemical inventory reporting:	This product is subject to Tier II reporting.

STATE REGULATIONS

California / Prop. 65:	See product label for Prop 65 Statement (if applicable)
Massachusetts / Right To Know Act:	None of the components are listed
New Jersey / Right To Know Act:	None of the components are listed
New York / Right To Know Act:	None of the components are listed
Pennsylvania / Right To Know Act:	None of the components are listed

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NFPA

Health hazard: 1

Fire hazard: 3

Instability hazard: 1

15.4. RESTRICTIONS FOR APPLICATION

Restricted to professional users.

15.5. DEMANDS FOR SPECIFIC EDUCATION

No specific requirements.

15.6. ADDITIONAL INFORMATION

Not applicable.

15.7. CHEMICAL SAFETY ASSESSMENT

No

15.8. SOURCES

OSHA Hazard Communication Standard (29 CFR 1910.1200)

SECTION 16: OTHER INFORMATION

THE FULL TEXT OF IDENTIFIED USES AS MENTIONED IN SECTION 1

None known.

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.

ZCUS/014, Issued on: 01-07-2026