

Material Safety Data Sheet

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

ZChek- FP12**Section 1: Product and Company identification****1.1 Product Name:** ZChek- FP12**1.2 Product Use:** Fluorescent Penetrant 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 85122

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

Asp. Tox. 1; H304, May be fatal if swallowed and enters airways.

2.2. Label Elements**Hazardous symbol**

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Signal word	: Danger
Hazard statement(s)	: May be fatal if swallowed and enters airways. (H304)
Precautionary statement(s)	:
General	: -
Prevention	: -
Response	: IF SWALLOWED: Immediately call a POISON CENTER/doctor. (P301+P310) Do NOT induce vomiting. (P331)
Storage	: -
Disposal	: Dispose of contents/container in accordance with local regulation (P501)
Additional labelling	: 19.17 % of the mixture consists of ingredients of unknown toxicity.

2.3. OTHER HAZARDS

Section 3: Information and Ingredients

3.1. SUBSTANCES

Not applicable. This product is a mixture.

3.2. MIXTURES

Product/substance	Identifiers	%w/w	Classification	Note
Distillates (petroleum), hydrotreated light	CAS No.: 64742-47-8	25-40%	Asp. Tox. 1, H304	[19]
Triphenylphosphate	CAS No.: 115-86-6	1-3%		

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

[19] UVCB = Unknown or variable composition, complex reaction products or of biological materials

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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.
If skin irritation occurs: Get medical advice/attention.
- 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.
- Ingestion : IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do not induce vomiting! If vomiting occurs, keep head facing down so that vomit does not get into the lungs. Call a doctor or ambulance. Symptoms of chemical pneumonia can appear after several hours. People who have swallowed the product should therefore be kept under medical attention for at least 48 hours.
- Burns : Not applicable.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

This product contains substances that can cause chemical pneumonia if swallowed. Symptoms of chemical pneumonia may appear after several hours.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

IF exposed or concerned: Get medical advice/attention.

INFORMATION TO MEDICS

Bring this safety data sheet or the label from this product

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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

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.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous

Decomposition compounds are produced.

These are:

Carbon oxides (CO / CO₂)

5.3. ADVICE FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact.

Section 6: Accidental Release Measures**6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

Contaminated areas may be slippery.

6.2. ENVIRONMENTAL PRECAUTIONS

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

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.

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Section 7: Handling and Storage**7.1 PRECAUTIONS FOR SAFE HANDLING**

Avoid direct contact with the product.

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.

Recommended storage material	:	Always store in containers of the same material as the original container.
Storage conditions	:	No specific requirements
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**

Triphenylphosphate

Long term exposure limit (OSHA Table Z-1) (mg/m³): 3

Long term exposure limit (ACGIH TLV) (mg/m³): 3

Long term exposure limit (NIOSH REL) (mg/m³): 3

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(29 CFR 1910.1000 TABLE Z-1 - Limits for Air Contaminants)

8.2. EXPOSURE CONTROLS

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations	:	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	:	Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

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- Appropriate technical measures : The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked. Apply standard precautions during use of the product. Avoid inhalation of vapours.
- 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 : Keep damming materials near the workplace. If possible, collect spillage during work.

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 :

TYPE	COLOUR	CLASS	STANDARD	
In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.				

Skin protection :
No specific requirement

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	

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

Physical state	: Liquid
Color	: Green
Odor	: Mild
Odor threshold (ppm)	: No data available
pH	: Neutral
Density (g/cm ³)	: 0.925
Relative density	: 0.925 (68 °F)
Kinematic viscosity	: 14 centistokes
Particle characteristics	: Not applicable - product is a liquid

PHASE CHANGES

Melting point/freezing point (°F)	: Not applicable - product is a liquid
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

DATA ON FIRE AND EXPLOSION HAZARDS

Flash point (°F)	: >200
Flash point (°C)	: >93
Flammability (°F)	: No data available
Auto-ignition temperature (°F)	: No data available
Explosion limits (% v/v)	: No data available

SOLUBILITY

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

9.2. OTHER INFORMATION

Evaporation rate (n butylacetate = 100)	: No data available
VOC (g/L)	: 176
Other physical and chemical parameters	: No data available
Oxidizing properties	: No data available

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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

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

10.5. INCOMPATIBLE MATERIALS

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

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

The product is not degraded when used as specified in section 1.

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

Product/substance	: Distillates (petroleum), hydrotreated light
Species	: Rat
Route of exposure	: Oral
Test	: LD50
Result	: >5000 mg/kg

Product/substance	: Distillates (petroleum), hydrotreated light
Species	: Rabbit
Route of exposure	: Dermal
Test	: LD50
Result	: >5000 mg/kg

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Product/substance : Distillates (petroleum), hydrotreated light
Species : Rat
Route of exposure : Inhalation
Test : LC50 (4 hours)
Result : > 5000 mg/m³

Product/substance : Triphenylphosphate
Species : Rat
Route of exposure : Oral
Test : LC50
Result : 3500 mg/kg

Product/substance : Triphenylphosphate
Species : Rabbit
Route of exposure : Dermal
Test : LD50
Result : > 10000 mg/kg

Product/substance : 2-butyl-6-(butylamino)-1H-benz[de]isoquinoline-1,3(2H)-dione
Species : Rat
Route of exposure : Oral
Test : LD50
Result : >10000 mg/kgbw

Product/substance : 2-butyl-6-(butylamino)-1H-benz[de]isoquinoline-1,3(2H)-dione
Species : Rabbit
Route of exposure : Dermal
Test : LD50
Result : >2000 mg/kgbw

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.

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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.

ASPIRATION HAZARD

May be fatal if swallowed and enters airways.

LONG TERM EFFECTS

None known.

OTHER INFORMATION

None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

Product/substance	:	7-(diethylamino)-4-methyl-2-benzopyrone
Species	:	Fish
Duration	:	96 hours
Test	:	LC50
Result	:	15.3 mg/L

Product/substance	:	7-(diethylamino)-4-methyl-2-benzopyrone
Species	:	Daphnia, Daphnia magna
Duration	:	48 hours
Test	:	LC50
Result	:	9.7 mg/L

Product/substance	:	2-butyl-6-(butylamino)-1H-benz[de]isoquinoline-1,3(2H)-dion
Species	:	Fish, Danio rerio
Duration	:	96 hours
Test	:	LC50
Result	:	172.247 mg/L

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Product/substance : 2-butyl-6-(butylamino)-1H-benz[de]isoquinoline-1,3(2H)-dione
Test method : OECD 202
Species : Daphnia, Daphnia magna
Duration : 48 hours
Test : EC50
Result : 0.17 mg/L

Product/substance : 2-butyl-6-(butylamino)-1H-benz[de]isoquinoline-1,3(2H)-dione
Test method : OECD 201
Species : Algae, Desmodesmus subspicatus
Duration : 72 hours
Test : EC50
Result : 381.3 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.

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.

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SECTION 14: TRANSPORT INFORMATION

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

* Packing group

** Environmental hazards

ADDITIONAL INFORMATION

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.

This product is within scope of the regulations of transport of dangerous goods.

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

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TSCA (the non-confidential portion):	Distillates (petroleum), hydrotreated light is listed Triphenylphosphate is listed 7-(diethylamino)-4-methyl-2-benzopyrone is listed 2-butyl-6-(butylamino)-1H-benz[de]isoquinoline-1,3(2H)-dione 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

STATE REGULATIONS

California / Prop. 65:	See product label for Prop 65 Statement (if applicable)
Massachusetts / Right To Know Act:	Triphenylphosphate is listed
New Jersey / Right To Know Act:	Triphenylphosphate / Substance number: 1951
New York / Right To Know Act:	— Triphenylphosphate is listed Triphenylphosphate is regulated with a Treshold Reporting Quantity (TRQ) of: 100 pounds
Pennsylvania / Right To Know Act:	— Triphenylphosphate is listed —

NFPA

Health hazard: 1
Fire hazard: 1
Instability hazard: 0

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)

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SECTION 16: OTHER INFORMATION**FULL TEXT OF H-PHRASES AS MENTIONED IN SECTION 3**

H304, May be fatal if swallowed and enters airways.

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.

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