



MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: BVR Zinc Oxide 700 SC
Approved Use: Micro Nutrient
Supplier: Barclay Chemicals Manufacturing Ltd.,
Damastown Way
Damastown Industrial Park
Mulhuddart
Dublin 15
Telephone No: 01-8112900
Fax No: 01-8224678
Issued By: Barclay Chemicals Ltd.

EMERGENCY TELEPHONE NUMBER: 00-353-1-8112900 (9am to 5pm)
00-353-863857769 (5pm to 9am)

2. COMPOSITION/INFORMATION ON INGREDIENTS

No.	Name
1.	Zinc Oxide
2.	Non-ionic Surfactant
3.	Sulphite lignin
4.	Ether Phosphate (free acid)
5.	Mono Ethylene Glycol

No.	CAS No.	R Phrases	Concentration	Classification
1.	1314-13-2	50/53	70-100% w/v	N
2.	---	22,38,41	1-10% w/v	---
3.	8061-51-6	Non Hazardous	1-10% w/v	---
4.	---	38, 41	1-10% w/v	---
5.	0057-55-6	Non Hazardous	20-50% w/v	---

Legend: Tx = Very Toxic, C = Corrosive, Xn = Harmful, Xi = Irritant, Ik = No Classification Required, E = Explosive, O = Oxidising, Fx = Extremely Flammable, F = Very Flammable, Fo = Flammable, N = Dang. To the Environment, M = Genotoxic, A = Sensitizing, K = Carcinogenic, R = Causes birth defects, H = skin absorption

3. HAZARDS IDENTIFICATION



Human: May be irritating to skin and eyes

Environment: Dangerous to the environment, very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

4. FIRST-AID MEASURES

General: Be sure it is safe to approach the casualty before giving first aid. Always put on personal protective equipment if you are likely to be contaminated.

Inhalation: Remove to fresh air. Seek medical attention if recovery is not rapid.

Skin Contact: Remove contaminated clothing. Wash with soap and water. Seek medical attention if irritation or symptoms persist.

Eye Contact: Irrigate with clean water for at least 15 minutes. Seek medical attention if there is any discomfort.

Ingestion: Drink plenty of water. **DO NOT INDUCE VOMITING.** If patient vomits place them into the recovery position. Seek medical attention.

Medical Information: For specialist advice doctors should contact the nearest **Poisons Information Centre.**

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use extinguishing appropriate to the surrounding fire conditions.

Unsuitable Extinguishing Media: None identified.

Special Exposure Hazards: If involved in a fire harmful fumes may be involved

Protective Equipment: Self contained breathing apparatus

Special procedures: Avoid letting water enter environment

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with skin and eyes and clothing. Wear suitable protective clothing
Hand protection: Chemical resistant gloves.
Eye Protection: Tightly fitted safety goggles
Body Protection: Protective suit

Environmental Precautions: Prevent contamination of soil, drains and surface waters

Methods for Cleaning Up: Absorb in inert material and place suitable and closable container. Dispose of according to section 13 of this document.

7. HANDLING AND STORAGE



Handling: Do not eat, drink, and smoke at the workplace. Wear suitable protective clothing.

Storage: Keep containers tightly closed. Keep in a cool, dry, well ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Precautions: Wear suitable protective gloves when handling the product or contaminated surfaces.
When using do not eat drink or smoke.
Wash hands and exposed skin before meals and after work.
Keep away from food, drink and animal feeding stuffs
Keep out of reach of children.
Keep in original container, tightly closed in a safe place
Do not contaminate surface waters or ditches with chemicals or used container.
Do not allow direct spray from ground-based vehicles, vehicle-mounted /drawn sprayers to fall within 6 metres of surface waters and ditches, direct spray away from water.

Protective Clothing: *Respiratory Protection:* If a spray mist is to be generated wear a suitable mask/respirator.
Hand Protection: Chemical resistant gloves.
Eye Protection: Wear suitable face visor
Body Protection: Wear overalls and closed footwear

Occupational Exposure Limits: No Information.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White viscous liquid

Odour: Characteristic

pH: 8 (1% solution)

Boiling Point/Boiling Range: 100° C

Melting Point/Melting Range: -5°

Flash Point: Not applicable

Flammability: Not applicable

Auto flammability: Not applicable

Explosive Properties: Not applicable

Oxidizing Properties: Not applicable

Relative Density: 1.71

Solubility (water): Miscible.

Partition Coefficient: No Information available

10. STABILITY AND REACTIVITY



Conditions to Avoid: Mist, fume or vapour generation
Materials to Avoid: Acids and oxidisers
Hazardous Decomposition Products: Carbon dioxide after contact with acids

11. TOXICOLOGICAL INFORMATION

Ingestion: Oral (Rat) LD 50 > 15000mg ZnO /kg.
Skin Contact: May cause irritation, not absorbed through the skin
Inhalation: Inhalation (Rat) LD 50/4hr > 5.7mg/l ZnO
Eye contact: May cause eye irritation

12. ECOLOGICAL INFORMATION

Ecotoxicity: EC50 (senastrum capricornutum) 170µg ZnO
Degradability: Insoluble in water
Further information: Very toxic to aquatic organisms

13. DISPOSAL CONSIDERATIONS

Product and Waste: Incineration or landfill in accordance with local regulations.
Containers: Containers should be disposed of in the same manner as the contents. Non contaminated packaging should be recycled.

14. TRANSPORT INFORMATION

Special transport precautions: UN no: 3077 Environmentally Hazardous Substance, Liquid, n.o.s.
Zinc Oxide, Class 9, Packing group III
Road/Rail Classification: ADR/RID Hazard ID 90
IMDG Classification: EmS Code F-A-S-F Label: Marine Pollutant
Air Classification: IATA instructions: 911 (max quantity 400kg)

15. REGULATORY INFORMATION

R Phrases	R50/53 – Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environments.
S Phases	S29 – Do not empty in drains S60 – This material and its container must be disposed of as hazardous waste S61 – Avoid release into the environment. Refer to special instructions/safety data sheet.

16. OTHER INFORMATION

Version No: 0 Date Prepared: 09/03/09

DISCLAIMER

The information in the MSDS relates to this specific material. If the product is used as a component in any other product, this MSDS may not be valid. The information contained was obtained from sources, which we believe are reliable. The information is provided without any warranty, expressed or implied, regarding its correctness.

This Material Safety Data Sheet was prepared according to Directive 93/112/EEC.
