



German metal Surface treatment Chemicals Co.
Research and Development Department
Water treatment Division

MATERIAL SAFETY DATA SHEET

CMC 1060

MANUFACTURER:

German metal surface treatment (SUGEST)

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1. Product and Company Identification

NAME CMC 1060
USE used as scale inhibitor
LABEL CMC 1060
Company German metal surface treatment chemicals co.

2. Product Description

CMC 1060 is a Scale inhibitor for reverse osmosis (RO) system with a specially formulated in a liquid form based on a blend of phosphonates to avoid formation of scale on reverse osmosis membrane metallic.

3. Hazards Identification

Emergency Overview

 Cause eye and skin irritation/or burn. Avoid contact with skin and eyes. Wear suitable protective clothing, gloves and eye/face protection.

May cause an allergic skin reaction. Harmful or fatal if swallowed. Harmful if inhaled or absorbed through the skin.

PRIMARY ROUTES OF ENTRY: Eye contact, skin contact, ingestion, and inhalation of product mists TARGET

ORGANS: Eye, skin, respiratory system, liver, kidney, and central nervous system.

Potential Health Effects

HMIS: Health 3 Flammability 0 Reactivity 0 Personal Protection: E
 4 = extreme 3 = high 2 = moderate 1 = slight



- **Inhalation:** This product is not expected to present an inhalation hazard unless mists or vapors are generated. Exposure to vapors or mists may cause throat irritation, headache, nausea, vomiting, dizziness, drowsiness, central nervous system depression, pulmonary edema, involuntary eye movement, and/or coma.
- **Skin contact:** Contact with this product may cause skin irritation. Massive contact with damaged skin or of material sufficiently hot to burn skin may result in the absorption of potentially lethal amounts of the product component
- **Eye contact:** Contact with this product may cause eye irritation.
- **Ingestion:** Harmful if swallowed, Early to moderate CNS depression may be evidenced by giddiness, headache, dizziness, and nausea. Kidney damage may be evidenced by changes in urine output, urine appearance, or edema (swelling from fluid retention).



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4. Chemical Composition

Ingredient	CAS No	Percent
Diphosphonic Acid	2809 – 21 - 4	10 - 30
Sodium Hydroxide	1310 - 73 - 2	10 - 30
Water	7732 – 18 - 5	To 100

5. Physical and Chemical Properties

Appearance	Clear Colourless to pale yellowish liquid
Odour	Characteristic
pH at 25 °C	5.2 – 6.6
Density at 25 °C	1.15 ±0.03 gm/cm ³

6. First Aid Measures

Inhalation:

Remove to fresh air. If breathing is difficult, have a trained medical person administer oxygen. Seek medical aid.

Skin contact:

Remove contaminated clothing and footwear. For skin contact, flush with large amounts of water. Irritation persists seek immediate medical attention.

Eye contact:

In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and if irritation persists, seek immediate medical attention.

Ingestion:

Seek medical advice. DO NOT induce vomiting unless directed to do so by medical personnel. Give one to two glasses of water or milk. Never give anything by mouth to a victim who is unconscious or is having convulsions.

7. Fire Fighting Measures

Fire: Non flammable

Fire Extinguishing Media: Use dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Water spray may be used to extinguish surrounding fire and cool exposed containers. Water spray will also reduce fume and irritant gases.

Hazardous combustion products: In event of fire created carbon oxides may be formed.

8. Accidental Release Measures



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Water treatment Division

Use personal protection recommended in Section 10, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:

Prevent runoff from entering drains, sewers or waterways.

Clean-up methods:

Should be prevented from entering drains, eliminate all ignition sources. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and reclaim or dispose in sealed containers in licensed waste. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

9. Handling and Storage

Handling:

Before use carefully read the product label. Use of safe work practices are recommended to avoid eyes or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated area (eg. If container is damaged).

Storage:

Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Removed from oxidizing agents, acids and foodstuffs. Ensure containers are adequately labeled and protected from physical damage when not in use.

Store separated from: Cyanides. Reducing Agents. Avoid contact with strong oxidizers. Strong acids.

Storage Conditions: Store in a cool, dry and good ventilated place. Keep container tightly closed after opening. Prevent direct sun light or ignition sources.

Temperature Limit: max 35 oC.

Maximum Storage Period: 24 Months under standard storage conditions.

Container Type Packaging must comply with requirements of Hazardous Substances (Packaging) Regulations 2001.

For information on product shelf life, please review labels on container.

10. Exposure Controls/Personal Protection

Exposure Limit Values: Not applicable

Ingredients	CAS	ACGIH	OSHA	Mexico
Sodium hydroxide	1310-73-2	2 mg/m ³ (Ceiling)	2 mg/m ³ (TWA)	2 mg/m ³ (Ceiling)

Engineering controls:



Ventilation Requirements No special ventilation requirements General room ventilation is adequate.

Respiratory protection:

If airborne concentrations exceed published exposure limits, use a NIOSH approved respirator in accordance with OSHA respiratory protection requirements (29 CFR 1910.134).

Eye/face protection: Chemical splash goggles.

Skin protection: For prolonged or repeated handling, use protective gloves made of: Neoprene, nitrile, polyethylene or PVC. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

General Hygiene Considerations: Avoid direct contact with eyes and skin.

11. Stability and Reactivity



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Stability: Stable under normal temperature conditions and recommended use.

Polymerization: Hazardous polymerization does not occur

Materials to avoid: Strong acids. Strong oxidizing substances.

Conditions to avoid: Toxic gases/vapors/fumes of: Nitrous gases (NOx). Phosphine (PH3). Carbon monoxide (CO). Carbon dioxide (CO2).

12. Toxicological information

Oral Toxicity (Rats) May be harmful if swallowed. LD 50, 2,400 mg/Kg

Dermal Toxicity (Rats) Practically non-toxic. LD 50, 7,940 mg/Kg

ECOLOGICAL INFORMATION

Toxicity Invertebrates: 48h EC50 Water flea (*Daphina magna*): 527 mg/L 96h LC50 Rainbow trout

(*Oncorhynchus mykiss*): 368 mg/L 96h LC50 Bluegill sunfish (*Lepomis macrochirus*): 868 mg/L

Algae: 96h EC50 Algae (*selenastrum capricornutum*): 3 mg/L

Algae growth inhibition is due to the ability of XF-334 to complex materials and not to toxicity per se.

Persistence and degradability

Biodegradation

Zahn-Wellens Dissolved Organic Carbon removed 33% 28d.

Modified OECD Screening theoretical CO2 evolution 2% 70d.

Modified SCAS Dissolved Organic Carbon removed 90%.

Closed Bottle BOD 30/COD 5%.

Degrades after acclimatization.

Bio-accumulative potential

There is no evidence to suggest bioaccumulation will occur.

Mobility in soil Accidental spillage may lead to penetration in the soil and groundwater. However, there is no evidence that this would cause adverse ecological effects.

13. Disposal Considerations

Disposal method:

Industrial setting: Disposal is according to all federal, state and local authorities for restrictions on disposal of chemical waste, manage chemical, waste through an approved waste treatment facility, do not reuse empty container in accordance with current local community codes please recycle empty container whenever possible.

14. Transport information

DOT/TDG: Please refer to the Bill of Lading/receiving documents for up to date shipping information
 Land and Sea Transport

UN Number:	3265
Transport Hazard Class	8
Shipping Name	CMC 1060
Packing Group:	III



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15. Other Information

REGULATORY STATUS (US)

SECTION 313: This product does not contain toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372.

TSCA: The ingredients of this product are on the TSCA Inventory.

PROPOSITION 65: This product does not contain chemicals considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer or reproductive toxicity and for which warnings are now required.

REGULATORY REFERENCES

29 CFR 1910.1010 Federal Regulations (OSHA Standard)

16. Packing

HDPE container and sealed cap.

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