



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

MATERIAL SAFETY DATA SHEET

CMC 2050

MANUFACTURER:

German metal surface treatment (SUGEST)

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1. Product and Company Identification

NAME CMC 2050
USE used as scale inhibitor and dispersant agent
LABEL CMC 2050
Company German metal surface treatment chemicals co.

2. Product Description

CMC 2050 is excellent scale inhibitor and dispersant in circulating cool water and sequestering agents by binding hard water elements such as calcium and magnesium.

3. Hazards Identification

Emergency Overview

Potential Acute Health Effects:

Hazardous in case of eye contact (irritant), of ingestion. Slightly hazardous in case of skin contact (irritant, sensitizer), of inhalation.

Potential Health Effects

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

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.



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4. Chemical Composition

Ingredient	CAS No	Percent
Sodium polyacrylate	9003 – 04 - 7	20 - 60
Water	7732 – 18 - 5	To 100

5. Physical and Chemical Properties

Appearance	Clear Colourless to pale yellowish liquid
Odour	Characteristic
pH at 25 °C	7 – 9
Density at 25 °C	1.13 ±0.05 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: Flash Point: > 93.9 °C

Fire Extinguishing Media: Use Water, carbon dioxide, foam or dry powder.

Hazardous combustion products: In the case of a fire, oxides of carbon, hydrocarbons, fumes, and smoke may be produced.

8. Accidental Release Measures

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.



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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.

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 °C.

Maximum Storage Period: 24 Months under standard storage conditions.

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

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 Guidelines

A: General Product Information

This product is not regulated as a hazardous material. However, the manufacturer recognizes the potential for respiratory tract irritation and recommends an eight-hour exposure limit of 0.05 mg/m³.

B: Component Exposure Limits

No information available.

Engineering Controls

Provide local exhaust ventilation to maintain worker exposure to less than 0.05 mg/m³ over an eight-hour period.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipments: Eyes/Face

Wear safety glasses with side shields or goggles.

Personal Protective Equipments: Skin

Use impervious gloves when handling the product in the manufacturing environment.

Personal Protective Equipments: Respiratory

Wear respirator with a high efficiency filter is particulate concentration in the work area exceeds 0.05 mg/m³ over an eight hour time period.

Personal Protective Equipments: General

Obey reasonable safety precautions and practice good housekeeping. Wash thoroughly after handling.

11. Stability and Reactivity

Stability: Stable under normal temperature conditions and recommended use.

Polymerization: Hazardous polymerization does not occur

Incompatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Slightly corrosive in presence of steel.



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Special Remarks on Reactivity: Hygroscopic; keep container tightly closed.

12. Toxicological information

Acute and Chronic Toxicity

A: General Product Information:

Acute oral toxicity: LD₅₀ rat - Dose: > 5000 mg/kg
 Acute dermal toxicity: LD₅₀ rat - Dose: > 2000 mg/kg
 Skin irritation: Rabbit - Very slight irritant
 Eye irritation: Rabbit - Very slight irritant
 Sensitization: Guinea pig - Result: 0/20 No sensitization

B: Acute Toxicity – LD₅₀/LC₅₀

Sodium polyacrylate (9003-04-7)

LD₅₀: Oral LD₅₀ Rat: > 40g/kg

Carcinogenicity:

Component Carcinogenicity

No information is available.

Chronic Toxicity

Chronic inhalation exposure to rates for a lifetime (two years) using sodium polyacrylate that had been micronized to a respirable particle size (less than 10 microns) produced non-specific inflammation and chronic lung injury at 0.2 mg/m³ and 0.8 mg/m³. Also, at 0.8 mg/m³, tumors were seen in some test animals. In the absence of chronic inflammation, tumors are not expected. There were no adverse effects detected at 0.05 mg/m³.

Mutagenicity

Sodium polyacrylate had no effect in mutagenicity tests.

ECOLOGICAL INFORMATION

Ecotoxicity

A: General Product Information

Composted polyacrylate absorbents are non-toxic to aquatic or terrestrial organisms at predicted exposure levels.

B: Component Analysis – Ecotoxicity – Aquatic Toxicity

No information available.

Environmental Fate

Polyacrylate absorbents are relatively inert in aerobic and anaerobic conditions. They are immobile in landfills and soil systems (> 90% retention), with the mobile fraction showing biodegradability. They are also compatible with incineration of municipal solid waste. Incidental down-the-drain disposal of small quantities of polyacrylic absorbents will not affect the performance of wastewater treatment systems.

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

International Transportation Regulations



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This product is not transport regulated.

15. Other Information

US Federal Regulations

A: General Product Information

This product is not federally regulated as a hazardous material.

B: Clean Air Act

No information is available.

C: Component Analysis

No information available.

D: Food and Drug Administration

No information available.

State Regulations

A: General Product Information

This product is not regulated by any state as a hazardous material.

B. Component Analysis – State

16. Packing

HDPE container and sealed cap.

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