

CORIUM 54 Advanced Water Treatment Concentrate

Corium 54 is a newly-developed effective combination of corrosion and scale inhibiting compounds for the treatment of recirculating water systems. It inhibits scaling in air conditioning systems, water cooling systems, brine tanks and rolling mills.

Unlike similar inhibiting compounds, Corium 54 is non-acidic and does not contain any potential recirculating water system pollutants like chromates, phosphates, zinc compounds or other heavy metals. Corium 54 protects ferrous and copper-alloy surfaces from corrosion and inhibits the formation of mineral scale.

Corium 54 offers single product treatment and protection against both corrosion and mineral scaling and normally eliminates the need for both pH control and the use of acids. It does not contribute potentially harmful substances to the system bleedoff.

Corium 54 is completely water-soluble and can be dispensed directly from shipping containers by means of chemical-metering pumps or by adding to open water systems at points of good agitation by use of drip-feed devices or measuring containers.

It thus eliminates the need for specialized personnel or equipment to ensure proper usage.

ADVANTAGES OF CORIUM 54

1. It is extremely effective for eliminating mineral scaling formation.
2. It is completely non-corrosive with metals.
3. It is safe to use on wood such as in cooling tower applications.
4. It settles even into cavities caused by pitting and corrosion.
5. It provides unequalled protection for treated surfaces.
6. It coats the metal surface with a micro-thin protective layer.
7. It retards future scale build-up.

HOW TO APPLY

Regular use of Corium 54 will greatly minimize labor cleaning costs and plant and equipment downtime required for cleaning. However, the greatest savings will be attributed to vastly improved heat transfer and plant operating efficiencies. The action of Corium 54 is gradual and chemical analysis of treated water is generally unnecessary after the following treatment rates are applied. Generally pH testing is unnecessary as Corium 54 is non acidic.

NOTE:-

Due to the highly concentrated nature of Corium 54, the product must always be diluted adequately before being added to any heating or cooling systems. This dilution assists the rapid distribution of the product when added to the system enabling it to quickly commence its cleaning action.

Mix the solution in the ratio approximately 1: 4 (i.e. one part Corium 54 to four parts water). Agitate the mixture briskly ensuring the Corium 54 is fully dispersed before adding the solution to the system. Use this recommended mixture in all cases **except** where the coolant solution is **not water**. In this instance, e.g. brine tanks, use the same solution as being used in equipment to dilute the Corium 54.

1. WATER COOLING TANKS, AIR CONDITIONING SYSTEMS, ROLLING MILLS ETC.

For initial treatment use 5 liters per 1,000 liters (5 gallons Corium 54 for each 1,000 gallons) capacity. After one week use 1 liter Corium 54 per 1,000 liters (1 gallon per 1,000 galls.) capacity. Do this weekly for the next six weeks. For continued maintenance protection, continue to add 1 liter Corium 54 per 1,000 liters (1 gallon per 1,000 gallons) capacity once every three weeks.

2. BRINE AND ICE TANKS

Use 1.5 liters Corium 54 per 1,000 liters (1-1/2 gallons per 1,000 gallons) coolant capacity for initial treatment. Then add 250-ml to 1.5 liters Corium 54 per 1,000 liters capacity (3-6 pints per 1,000 gallons) once each month.

To assist mixing - dilute Corium 54 using the same types of coolant solution presently being used in equipment. Use the ratio of approximately 250 ml. Corium 54 per liter of coolant (1 gallon of coolant to each quart of Corium 54).

To compensate for any additions of coolant make-up solution, add one extra dosage of Corium 54 solution periodically.

3. AIR COMPRESSOR COOLING SYSTEMS AND AUTOMOTIVE RADIATORS

Use 30 ml of Corium 54 to every 14 liters (3 gallons) capacity. Mix solution with water as described previously then add to system. Drain and flush system after approximately 45 hours or 724 km (450 miles) running time.

Thereafter add 15 ml Corium 54 for every 14 liters (3 gallons) capacity once every 4,024 km (2,500 miles) or 250 hours running.

GENERAL INFORMATION

Corium 54 is compatible with all commonly used additives. No special precautions need be observed when cleaning containers in which Corium 54 mixture is prepared. Unless otherwise directed, Corium 54 should be left in the system.

It is essential that the correct 'pace' as stipulated be followed. Speeding the process up can cause an over-action which tends to break up the inner-scale build-up and lead to clogging of the system.

MAGNA INDUSTRIAL CO. LIMITED

Total Quality Maintenance

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MATERIAL SAFETY DATA SHEET

DATE 01 Aug 2014

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name/Code CORIUM 54

Company Identification

Omega Manufacturing Division,
Magna Industrial Co. Limited,
1801, Guardian House,
32 Oi Kwan Road,
Wanchai, Hong Kong.

Distributor

Alshawi Trading,
Block 351, Road 51, Bldg 20, Manama - Bahrain.
www.alshawitrading.com
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P.O.Box 33526

Telephone (852) 25775187
Fax (852) 25773190

Telephone (973) 1755 0019
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SECTION 2 - HAZARDS IDENTIFICATION

Not classified as hazardous.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS Number</u>	<u>Wt.%</u>	<u>Classification</u>
Sodium hydroxide	1310-73-2	1-5	C;R35

SECTION 4 - FIRST-AID MEASURES

Eye Contact: Flush with plenty of water for at least 15 minutes. Seek immediate medical attention.

Skin Contact: Wash thoroughly with soap and water. Obtain medical attention in case of skin irritation or other cause for concern.

Inhalation: Move patient to open air.

Ingestion: Do not induce vomiting. Seek immediate medical attention.

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SECTION 5 - FIRE-FIGHTING MEASURES

Extinguishing Media: N.A.

Special Protective Equipment for Fire Fighters: N.A.

Unusual Fire and Explosion Hazards: Dense smoke.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spillage: Transfer bulk of material into another container. Absorb remaining residue with proper absorbents such as sand, vermiculite. Sweep up and dispose of in accordance with local and national regulations.

SECTION 7 - HANDLING AND STORAGE

Keep containers closed. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Wash clothing before reuse. Keep away from feed and food products. Keep out of reach of children.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

ACGIH TLV

Sodium hydroxide 2 mg/m³

Eye Protection: Safety goggles

Hand Protection: Rubber or plastic oil resistant gloves.

Ventilation: Use under well ventilated conditions.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Off-white liquid

Odour: None

pH: 11

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Specific Gravity: 1.08
Vapour Pressure: N.A.
Boiling Point: 100°C
Melting Point: N.A.
Flash Point: None
Flammability: N.A.
Evaporation Rate: <1 (water = 1)
Solubility in Water: Soluble

SECTION 10 - STABILITY AND REACTIVITY

Stable

Materials to Avoid: Acidic materials.

Toxic compounds may form on thermal decomposition. Hazardous combustion products: carbon monoxide, carbon dioxide.

SECTION 11 - TOXICOLOGICAL INFORMATION

There is no lethal dose information available.

Inhalation: Irritating to the respiratory system.

Skin: May cause irritation, drying and cracking.

Eyes: Cause irritation.

Ingestion: May cause irritation in mouth and stomach, thirst, nausea, vomiting, diarrhoea, with possible collapse if large amounts ingested.

SECTION 12 - ECOLOGICAL INFORMATION

No ecological information is available at present.

SECTION 13 - DISPOSAL CONSIDERATIONS

Comply with all local and national regulations regarding disposal.

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SECTION 14 - TRANSPORT INFORMATION

UN Number : Not regulated

IATA Class : Not regulated, Packing Group: Not regulated

IMDG Class : Not regulated, Packing Group: Not regulated

Not considered hazardous for transport purpose.

SECTION 15 - REGULATORY INFORMATION

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SECTION 16 - OTHER INFORMATION

R-phrases: R34 - Causes burns

S-phrases: S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show label when possible)

Remarks: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, express or implied, and we assume no responsibility for any loss, damage, or expense, direct or consequential, arising out of their use.