



Ciba® IRGATREAT® AS 2206

Antifouling and Scale Inhibitor for reverse osmosis membranes

Description	<p>IRGATREAT® AS 2206 is a specific formulation developed to prevent inorganic deposit in reverse osmosis membranes.</p> <p>IRGATREAT® AS 2206 is a multifunctional scale inhibitor highly effective against calcium sulphate and carbonate. It is recommended to prevent inorganic scaling in processes using membrane technology.</p>
Benefits	<ul style="list-style-type: none"> • Stable across a wide range of pH and temperature
Application	<p>The dose is dependent on the physical-chemical characteristics of the water to be treated, the temperature of the water, the recovery ratio the type of membrane and the pressure.</p> <p>The generally recommended dosage is 5 to 11 g/m³ of the concentrate.</p> <p>IRGATREAT® AS 2206 should be dosed, as supplied, via a positive displacement pump into the feed water.</p> <p>In all cases our engineers and technicians are available to carry out an in depth study in order to recommend the optimum dosage and conditions of use.</p>
Analytical Measurement	<p>Evaluation of the concentration of IRGATREAT® AS 2206 is carried out in accordance with the analytical test method no 601 and 604.</p>
Shipping and Handling	<p>IRGATREAT® AS 2206 should be stored in its original packaging in a cool dry location (10-25 deg C).</p> <p>IRGATREAT® AS 2206 is supplied in a variety of package options. Details available on request.</p> <p>IRGATREAT® AS 2206 has a shelf life in excess of 16 months.</p>
Regulations	<p>The raw materials of IRGATREAT® AS 2206 conform to ANSI/NSF for the production of drinkable water up to a maximum IRGATREAT® AS 2206 dosage of 11 g/m³ in the feed water.</p>
Health & Safety	<p>Detailed information on handling and any precautions to be observed in the use of the product(s) described in this leaflet can be found in our relevant Health and Safety data Information sheet (MSDS or FDS).</p>
Quality Assurance	<p>Ciba Specialty Chemicals, Business Line Water Treatment, quality assurance system is recognised as conforming with the requirements of Standard ISO 9001 version 2000 (International Certificate: SQS Certificate Issued on 01 January 2003; registration number 21533-01).</p>

Important

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Ciba Specialty Chemicals
Water and Paper Treatment Segment
PO Box 38
Low Moor
Bradford, West Yorkshire
England BD12 0JZ
Tel: +44 (0)1274 417000
Fax: +44(0)1274 417675

Ciba Spécialités Chimiques SA
Water & Paper Treatment
Immeuble Le Veronèse
19, Avenue Dubonnet
F-92407 Courbevoie Cedex
France

Ciba Specialty Chemicals Inc. (Europe)
Water and Paper Treatment Segment
PO Box
CH-4002 Basel, Switzerland
Fax: +41 61 636 5532

Ciba Specialty Chemicals Corp. (NAFTA)
Water and Paper Treatment Segment
2301 Wilroy Road
PO Box 820
Suffolk, Virginia 23439-0820

Ciba Specialty Chemicals Pte. Ltd. (Singapore)
Water and Paper Treatment Segment
3 International Business Park
#05-01 Nordic European Centre
Singapore 609927
Fax: +65 6890 6104

Ciba Especialidades Químicas Ltda. (South America)
Water and Paper Treatment Segment
Av. Prof. Vicente Rao 90
Sao Paulo, BR 04706-900
Fax: +55 11 543 7252

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Safety Data Sheet According to 91/155/EEC



IRGATREAT AS 2206

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Date / Revised: 15.02.2007
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1. Identification of the Substance/Preparation and of the Company/Undertaking

Designation/Trade Name: **IRGATREAT AS 2206**
Use: Water conditioner.

Company: Ciba Specialty Chemicals PLC
Charter Way
GB-MACCLESFIELD, Cheshire SK10 2NX
United Kingdom
Tel +44-(0)1625-421 933
Fax +44-(0)1625-619 637

Emergency contact: +44-(0)1625-503-922

2. Composition/Information on Ingredients

Chemical nature:
Additives in solution

3. Hazards Identification

Classification not required

Hazards:
May cause some eye irritation which should cease after removal of the product.

4. First-aid Measures

General advice:
Remove contaminated clothing.

If inhaled:
In case of respiratory difficulty, remove patient to fresh air.

On skin contact:
Remove contaminated clothing. Wash affected skin with soap and plenty of water.

On contact with eyes:
Rinse immediately with plenty of water for at least 10 minutes taking care to wash under the eyelids. If irritation persists, seek medical attention.

On ingestion:
Do not induce vomiting. Rinse mouth and then drink plenty of water. Seek medical attention.

5. Fire-fighting Measures

Suitable extinguishing media:
Will not burn. Use media appropriate for type of fire and combustibles in area.

Unsuitable extinguishing media for safety reasons:
Water may be ineffective but should be used to cool fire-exposed structures and vessels and to reduce the intensity of flames.

Combustion products:
Carbon-, nitrogen-, and phosphorus oxides.

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Exposure hazards:

Do not release chemically contaminated water into drains, soil or surface water. Sufficient measures must be taken to retain the water used for extinguishing. Dispose of contaminated water and soil according to local regulations.

Special protective equipment:

Chemical protection suit, suitable gloves, boots and self contained breathing apparatus.

6. Accidental Release Measures

Personal precautions:

Wear suitable personal protective clothing and equipment.

Environmental precautions:

Prevent entry into sewage systems, ground and surface waters.

Methods for cleaning-up or taking-up:

Contain with suitable absorbent material. Scoop into marked containers for disposal as chemical waste.
Flush small residues away with water.

7. Handling and Storage

Handling

As with all industrial chemicals, use good industrial practices when handling. Avoid eye, skin, and clothing contact. Do not inhale. Do not taste or swallow. Use only with adequate ventilation.
Do not eat, drink or smoke during work.

Protection against fire and explosion:

No special precautions necessary.

Storage

Segregate from acids and acid salts.

Storage requirements:

Keep in a dry, cool place.

8. Exposure Controls and Personal Protection

Technical measures/precautions:

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate.

Eye protection:

Tightly fitting safety goggles (chemical goggles).

Skin and body protection:

Lightweight protective clothing.

9. Physical and Chemical Properties

Form:	liquid
Colour:	colourless to yellow
Odour:	ammonia-like
pH value:	10.6 (25 °C)
Flash point:	Not applicable

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Lower explosion limit:	Not applicable
Upper explosion limit	Not applicable
Fire promoting properties:	Not applicable
Density:	1.34 g/cm ³
Solubility in water:	miscible
Solubility:	Not tested
Partitioning coefficient n-octanol/water (log Pow):	Not applicable
Viscosity, dynamic:	Not tested
Evaporation rate:	Not tested

10. Stability and Reactivity

Conditions to avoid:

Avoid temperature extremes.

Materials to avoid:

strong oxidizing agents, strong acids

Possible thermal degradation products:

Carbon oxides., phosphorous compounds, nitrogen oxides

11. Toxicological Information

Acute oral toxicity:

rat/LD50: > 20,000 mg/kg
calculated

Acute dermal toxicity:

rat/LD50: > 18,000 mg/kg
calculated

Skin irritation/corrosion:

rabbit/not classified

Eye irritation/corrosion:

rabbit/not classified

12. Ecological Information

Toxicity to fish:

Oncorhynchus mykiss/96 h/LC50: > 380 mg/l
calculated *↳ rainbow trout*

Biodegradation:

30 d: (OECD 301D; EEC 92/69, C.4-E) 20 %
28 d: (OECD Guideline 302 B) 23 %

Bioaccumulation:

Not expected to bioaccumulate

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13. Disposal Considerations

Waste from residue/unused products:

Burning or disposal in accordance with local regulations for chemical waste.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

Clean packaging material should be subjected to waste management schemes (recovery recycling, reuse) according to local legislation.

14. Transport Information

Land transport (ADR):

Not classified as a dangerous good under transport regulations.

Land transport (RID):

Not classified as a dangerous good under transport regulations.

Sea transport (IMDG):

Not classified as a dangerous good under transport regulations.

Air transport (ICAO/IATA):

Not classified as a dangerous good under transport regulations.

15. Regulatory Information

Regulations of the European Union (Labelling) / National legislation/regulations

Classification not required

Additional labelling information:

Safely data sheet available for professional user on request.

16. Other Information

Use:

Restricted use:

THIS MATERIAL IS NOT INTENDED FOR USE IN PRODUCTS FOR WHICH PROLONGED CONTACT WITH MUCOUS MEMBRANES, BODY FLUIDS OR ABRADED SKIN, OR IMPLANTATION WITHIN THE HUMAN BODY, IS SPECIFICALLY INTENDED, UNLESS THE FINISHED PRODUCT HAS BEEN TESTED IN ACCORDANCE WITH NATIONALLY AND INTERNATIONALLY APPLICABLE SAFETY TESTING REQUIREMENTS. BECAUSE OF THE WIDE RANGE OF SUCH POTENTIAL USES, CIBA IS NOT ABLE TO RECOMMEND THIS MATERIAL AS SAFE AND EFFECTIVE FOR SUCH USES AND ASSUMES NO LIABILITY FOR SUCH USES.

Vertical lines in the left hand margin indicate an amendment from the previous version.

This product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulation. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.