

Sentinel R200 Solar System Cleaner

Ready-to-use cleaner for solar heating systems

Features & Benefits

- Ready to use - no need for dilution
- Removes sludge and deposits from degraded thermal fluid
- Cleans with only 20 minutes circulation
- Effective at low or room temperature
- Can be used with flushing machine
- None foaming and easy disposal
- Compatible with the construction materials of the solar system

Properties

Sentinel R200 is a specially formulated, mildly alkaline product designed for use as a cleaner for solar heating system circuits containing either flat plate or vacuum tube collectors.

The thermal fluids used in solar heating systems may degrade over time because of prolonged exposure to elevated temperatures.

This degradation process, which is indicated by a darkening of the fluid, not only reduces the lifetime of the thermal fluid, but also has the following adverse effects on the operation of the system:

- Color changes and viscosity increases
- Thickening of the fluid and solid deposits which causes blockages
- Reduced diameter of the pipe work
- Freezing point increases
- pH decreases
- The degraded fluid has a reduced heat transfer capability

In order to restore the efficient operation of the solar heating system it is necessary to drain the degraded thermal fluid, clean the system to remove any sludge, deposits or blockages, and refill the system with Sentinel R100 - a thermal fluid which is especially formulated to resist thermal degradation and so extend fluid life.



Description and Use

Sentinel R200 contains specific dispersants designed to remove deposits and sludge from solar heating equipment.

Sentinel R200 is circulated through-out the solar heating system at ambient temperature for a period of about 20 minutes with a flushing unit and will effectively remove any sludge, deposits or blockages caused degraded thermal fluid. For systems with deposits that are baked on to the surfaces it may be necessary to elevate the cleaning temperature to achieve an effective clean.

For guidelines in the use of Sentinel R200 refer to the Technical Information sheet entitled "Sentinel R200 Solar System Cleaner Application Guidelines" which is available at www.sentinelprotects.com or available from Sentinel Performance Solutions Ltd.

Chemical Composition

- **Appearance:** Clear, colourless liquid
- **Specific gravity (68°F):** 1.0 g/cm³ (approx.)
- **pH:** 12.9

Materials Compatibility

Sentinel R100 does not attack the sealant materials normally in solar heating systems.

Packaging

Sentinel R200 is supplied in 10 and 20 liter (2.64 and 5.28 gallon) non-returnable plastic containers.

Safety Precautions

The information provided below enables compliance with the Control of Substances Hazardous to Health Regulations. A full Safety Data Sheet is available upon request.

Description	Cleaner for solar collector circuits An alkaline aqueous solution of organic and inorganic compounds
Health Hazards	No significant hazards
Handling	Avoid contact with skin and eyes. Keep out of reach of children and animals. Wash out empty container thoroughly with water before disposal.
Storage	Keep container tightly closed. Store in cool, well ventilated area.
Spillage	Absorb on to inert material and dispose of according to Special Waste Regulations.
Fire/Explosion Risks	Non-flammable.
First Aid	Skin Exposure: Wash immediately with plenty of water. Immediately remove all contaminated clothing. Seek medical attention. Eye Exposure: Flush immediately with plenty of running water. Seek medical advice. Ingestion: Rinse mouth with water. Do NOT induce vomiting! Seek medical advice.