

# CARUS REMEDATION



CAS Registry No. 7775-27-1 EINECS No. 231-892-1  
CAS Registry No. 64742-51-4 EINECS No. 265-154-5

Persulfate SR ISCO Reagent  
FACT SHEET

Persulfate SR ISCO reagent has been specifically manufactured for environmental applications such as remediation of soils and associated groundwater. This product can be used to degrade a variety of contaminants including chlorinated ethenes, chlorinated ethanes, chlorinated methanes, benzene, toluene, ethylbenzene, and xylene, methyl tertiary butyl ether, polyaromatic hydrocarbons, petroleum hydrocarbons, 1,4-dioxane and pesticides.

## REMEDIATION GRADE

Persulfate SR is manufactured with sodium persulfate. Sodium persulfate meets specifications for assay.

## CHEMICAL/PHYSICAL DATA

<b>Assay</b>	>98.2% as $\text{Na}_2\text{S}_2\text{O}_8$
<b>Formula</b>	$\text{Na}_2\text{S}_2\text{O}_8$ in paraffin wax
<b>Formula Weight</b>	$\text{Na}_2\text{S}_2\text{O}_8$ : 238.1 g/mol Wax: not determined
<b>Form</b>	Extruded solid of granular crystalline inside wax
<b>Congealing point of wax is</b>	54-57° C / 129-134° F
<b>Paraffin wax will start to melt at</b>	55° C / 132° F

## DESCRIPTION

Sodium persulfate crystals or granules are white encapsulated in a clear wax.

Standard size is 2.5 in (6.4 cm) diameter by 18 in (45.7 cm) long with 70-75% by weight  $\text{Na}_2\text{S}_2\text{O}_8$ .

## APPLICATIONS

Persulfate SR was developed to provide a sustained release of sodium persulfate for soil and groundwater treatment. Persulfate SR can be emplaced in the subsurface using direct push technology or suspended into existing wells. This technology can be used for source treatment as well as barrier applications.

## SHIPPING CONTAINERS

**2.5 in (6.4 cm) by 18 in (45.7 cm) cylinder - Qty 6/box** Corrugated box that is 12.5 in (31.75 cm) by 10.625 in (26.987 cm) by 22 in (55.88 cm) with foam insert. Weight of box is 3.303 lbs (1.498 kg). Weight per cylinder is 6.348 lbs (2.879 kg) or 38.088 lbs (17.276 kg) per box. Total weight of box and cylinders is 41.391 lbs (18.774 kg). (Domestic and international)

Specialty packaging above was designed to insure delivery of cylinders without breakage.

**Orders can only be placed as full boxes in multiples of 6 or 12 depending on the cylinder dimensions.**

**Packaging meets UN performance-oriented packaging requirements.**

## SHIPPING

Persulfate SR is classified as an oxidizer in accordance with the classification requirements of the Hazardous Materials Transportation regulations. It is shipped under Interstate Commerce Commission's (ICC) Tariff 19.

**Proper Shipping Name:** Oxidizing solid, n.o.s.  
(sodium persulfate)  
(RQ- 100)

**Hazard Class:** Oxidizer

**Identification Number:** UN 1479

**Label Requirements:** Oxidizer

**Packaging Requirements:** 49 CFR Parts 100 to 199

**Sections:** 173.152, 173.153, 173.194

### Shipping Limitations:

*Minimum quantities:*

Rail car: See Tariff for destination

Truck: No minimum

### Postal regulations:

Information applicable to packaging of oxidizers for shipment by the U.S. Postal Service to domestic and foreign destinations is readily available from the local postmaster. United Parcel Service accepts 25 lbs as largest unit quantity properly packaged; (consult United Parcel Service). Regulations concerning shipping and packing should be consulted regularly due to frequent changes.

## CARUS CORPORATION

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### CORROSIVE PROPERTIES

Persulfate SR ISCO reagent is compatible with materials including butyl rubber, EPDM, fiber reinforced plastic, glass, neoprene, plexiglass, polyethylene, PVC, stainless steel, Teflon®, viton. Incompatible materials include aluminum, carbon steel, galvanized pipe, monel, nitrile rubber, brass, copper, iron, and nickel. Refer to Material Compatibility Chart.

Actual studies should be made under the condition in which Persulfate SR will be used.

### HANDLING, STORAGE, AND INCOMPATIBILITY

Protect containers against physical damage. Eye protections should also be worn when handling Persulfate SR. Avoid breathing vapors or mists of the wax. Exposure or inhalation may cause irritation.

Store in a cool, clean, dry place away from point of sources of heat. Concrete floors are preferred to wooden decks. To clean up spills and leaks, follow the steps recommended in the MSDS or eSDS. Be sure to use goggles, rubber gloves, and respirator when cleaning up a spill or leak.

Avoid contact with acids, halides, combustible materials, most metals and heavy metals, oxidizable materials, other oxidizers, reducing agents, cleaners, and organic or carbon containing compounds. Fires may be controlled and extinguished by using large quantities of water. Refer to the SDS or eSDS for more information.

Persulfate SR is stable under normal conditions. Do not expose to sparks, heat, open flames, or hot surfaces. It is important that smoking is not allowed in proximity to Persulfate SR. Do not cut with any cutting tools which could produce friction (i.e. hand saws, circular saws, reciprocating saws, etc.) as it may cause ignition of the material.

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