

SAFETY DATA SHEET

SR113 Soot Remover

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Identification of the Substance: Norchem SR113 Soot remover
Product Code : SR113
Product Name : Soot Remover (Powder)
Chemical Family : Fuel Treatment

Product Description : Mixture of inorganic compounds.

Supplier : Goldcrest International (S) Pte Ltd
38 Tech Park Crescent
Singapore 638098
Tel: 68626006 Fax: 68633665

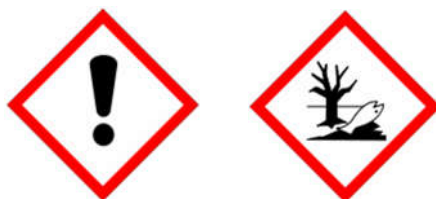
SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity, Oral (Category 4)
Eye irritation (Category 2)
Acute aquatic toxicity (Category 1)

GHS Label elements, including precautionary statements

Pictogram:



Signal word: Warning

Hazard statements

H302: Harmful if swallowed.
H319: Causes serious eye irritation.
H400: Very toxic to aquatic life.

SAFETY DATA SHEET

SR113 Soot Remover

Precautionary statements

Prevention

- P264: Wash skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment.
P280: Wear protective gloves/eye protection/face protection.

Response

- P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330: Rinse mouth.
P337+313: If eye irritation persists get medical advice/attention.
P391: Collect spillage.

Disposal

- P501: Dispose of contents/container to an approved waste disposal plant.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Chemical Name	CAS Number	Concentration %
Ammonium Chloride	12125-02-9	10 - 30
Zinc Oxide	1314-13-2	10 - 30

SECTION 4 - FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

Dust or fume of zinc oxide present in this formulation can irritate the respiratory tract. Prolonged skin contact can produce a severe dermatitis called oxide pox. Exposure to high levels of dust or fume can cause metallic taste, marked thirst, coughing, fatigue, weakness, muscular pain, and nausea followed by fever and chills. Severe overexposure may result in bronchitis or pneumonia with a blush tint to the skin. Prolonged or repeated exposure can cause reversible liver enzyme abnormalities and diarrhea.

SAFETY DATA SHEET

SR113 Soot Remover

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Zinc/zinc oxides

Advice for firefighters

Wear self-contained breathing apparatus for fire-fighting if necessary.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Discharge into the environment must be avoided.

Methods for containment and cleaning up:

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7 - HANDLING AND STORAGE

Precautions for Safe Handling:

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage

This product is hygroscopic so keep container tightly closed in a dry and well-ventilated place.

SAFETY DATA SHEET

SR113 Soot Remover

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	CAS-No.	Value	Control parameters	Basis
		PEL (Short term)	20 mg/m ³	Singapore Workplace Safety and Health Act – First Schedule Permissible Exposure Limits of Toxic Substances
Zinc oxide	1314-13-2	PEL (Short term)	10 mg/m ³	Singapore Workplace Safety and Health Act – First Schedule Permissible Exposure Limits of Toxic Substances

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)

Skin protection

Handle with gloves, Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EN 374 standard.

Body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance exposure use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SAFETY DATA SHEET

SR113 Soot Remover

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Solid powder at ambient temperature
Color	: White
Odor	: None
Melting point	: Not determined
Flash point	: Non – Flammable
Bulk density	: 1.6 – 2.0
Solubility in water (% by weight)	: ~ 40 % Soluble (@25°C)

SECTION 10 – STABILITY AND REACTIVITY

Stability:

Stable under recommended storage conditions.

Conditions to Avoid:

Exposure to moisture may affect product quality.

Incompatible Materials:

Strong acids, strong bases and strong oxidizing agents.

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on toxicological effects

Based on Ammonium chloride

Acute toxicity

LD 50 Oral – rat – 1,650 mg/kg

Skin corrosion/irritation

Skin – rabbit – No skin irritation

Based on Zinc oxide

Acute toxicity

LD50 Oral – mouse – 7,950 mg/kg

LC50 Inhalation – mouse – 2,500 mg/m³

Skin corrosion/irritation

Skin – rabbit – Mild skin irritation – 24 h

Serious eye damage/eye irritation

Eyes – rabbit – Mild eye irritation – 24 h

SAFETY DATA SHEET

SR113 Soot Remover

Potential health effects

Inhalation : May be harmful if inhaled. May cause respiratory tract irritation.
 Ingestion : May be harmful if swallowed.
 Skin : may be harmful if absorbed through skin. May cause skin irritation.
 Eyes : Causes eye irritation.

Signs and symptoms of Exposure

Zinc oxide dust or fume can irritate the respiratory tract. Prolonged skin contact can produce a severe dermatitis called oxide pox. Exposure to high levels of dust or fume can cause metallic taste, marked thirst, coughing, fatigue, weakness, muscular pain, and nausea followed by fever and chills. Severe overexposure may result in bronchitis or pneumonia with a bluish tint to the skin. Prolonged or repeated exposure can cause reversible liver enzyme abnormalities and diarrhea.

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity

Based on Ammonium chloride

Toxicity to fish

LC50 – Cyprinus carpio (Carp) – 209.00 mg/l – 96 h
 LC50 – Oncorhynchus mykiss (rainbow trout) – 3.98 mg/l – 96 h
 NOEC – Oncorhynchus mykiss (rainbow trout) – 57 mg/l – 96h
 LC50 – Daphnia magna (Water flea) – 161 mg/l – 48 h

Toxicity to daphnia and
 Other aquatic invertebrates

Growth inhibition NOEC – Daphnia magna (water flea) – 0.1 mg/l – 216 h

Based on Zinc oxide

Toxicity to fish

LC50 - Oncorhynchus mykiss (rainbow trout) – 1.1 mg/l – 96.0 h
 EC50 - Daphnia magna (Water flea) – 0.098 mg/l – 48 h

Toxicity to daphnia and
 Other aquatic invertebrates

Other adverse effects: Very toxic to aquatic life.

SECTION - 13 DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SAFETY DATA SHEET

SR113 Soot Remover

SECTION 14 - TRANSPORT INFORMATION

Land Transport ADR/RID:

Hazard Class: 9

UN number: 3077

Packing group: III

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Environmental hazards: Yes

IMDG

Hazard Class: 9

UN number: 3077

Packing group: III

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Marine pollutant: Yes

IATA

Hazard Class: 9

UN number: 3077

Packing group: III

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Environmental hazards: Yes

SECTION 15 - REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Notification status

All the components of this product are on the inventory, or in compliance with the inventory of the following: AICS, DSL, ENCS, IECSC, ISHL, KECL, NZIoC and PICCS.

SECTION 16 - OTHER INFORMATION

The information contained herein relates only to the specific material identified. This information is accurate and reliable on the date of this safety data sheet, but no warranty or representation is made as to the accuracy, reliability or completeness of information. It is offered solely for your consideration, investigation and verification. Before using this product, read all information provided.