Material Safety Data Sheet

Chemical name: **SterlingShield S4** Effective date: February 11, 2026

In view of the important information contained in this document, CoaTech expects you to read the entire chemical safety technical manual. Unless your use conditions require other appropriate methods or measures, please follow the preventive measures listed in this document.

1. Chemicals and Company Identification

1.1 Chemical Product Name: SterlingShield S4

1.2 Company Name: Haining CoaTech Metal Surface Technology Co., Ltd

1.3 24-hour Emergency Contact Phone Number: +86-573-87260622

Customer Service Hotline: +86-573-87260611

2. Chemical Composition Information

Component	CAS	Content
Naphtha (petroleum), hydrotreated heavy	64742-48-9	>90%
Nano film-forming agent (Trade secret)		<10%

3. Hazard Classification

3.1 Overview

Color: Colorless and transparent to slightly milky white

Physical state: Liquid

Odor: Mild

Danger: Slight irritation to the eyes

3.2 Potential Health Effects

Single acute overexposure:

Inhalation: High concentrations of steam or mist irritate the respiratory tract, resulting in discomfort in the nose, a runny nose, chest pain, and cough

Eye Contact: Moderate discomfort; the conjunctiva may become severely red

Skin Contact: Mild irritation

Skin Absorption: No harmful effects based on existing information

Phagocytosis: Moderately toxic. Irritates the mouth, throat, esophagus, and stomach, accompanied by abdominal discomfort, nausea, vomiting, and diarrhea. Inhalation or vomiting can cause aspiration into the lungs, leading to lung damage.

Long-term or repeated overexposure:

Multiple Overexposure: No harmful effects based on existing information

Other Effects of Excessive Exposure: Unknown

Medical condition deterioration caused by exposure:
The available toxicological data and the physical and chemical properties of the chemical indicate that it will not worsen existing medical conditions.

4. First Aid Measures

4.1 *Inhalation*: Move to fresh air. If symptoms persist, seek medical attention.

4.2 *Eye Contact*: Immediately rinse with water continuously for several minutes. Remove contact lenses. If symptoms persist, seek medical attention.

4.3 *Skin Contact*: Rinse with water.

4.4 *Phagocytosis*: If the patient is completely awake, have them drink 2 glasses of water. Do not induce vomiting. Seek medical attention.

4.5 *Internal Medicine Doctor's Notice*: No specific antidote. Treatment should be based on the patient's symptoms and clinical status. Due to the possibility of lung damage caused by aspiration of vomit, do not use mechanical or medication-assisted methods to induce vomiting. If gastric lavage is necessary, use methods that avoid inhalation as much as possible (such as gastric lavage after endotracheal intubation).

5. Fire Protection Measures

5.1 *Flammability*: See Section 9, Physical and Chemical Properties

5.2 *Extinguishing Medium*: According to the technology recommended by the manufacturer, use water mist, alcohol-resistant foam, or suitable foam to extinguish the fire. For small fires, use carbon dioxide or dry chemical powder.

5.3 *Fire Extinguishing Procedure*: Do not directly apply a solid stream of water or foam to the hot combustion pool; otherwise, it will cause foaming and increase the fire.

5.4 *Special Protective Equipment for Firefighters*: Wear self-contained breathing apparatus and fire-resistant clothing.

5.5 *Special Combustion and Explosion Hazards*: Avoid water accumulation. Chemical reactions may spread fire through water or come into contact with fire sources.

5.6 *Hazardous Combustion Products*: Carbon monoxide and/or carbon dioxide are produced during combustion. Inhalation of carbon monoxide is highly toxic, and sufficient carbon dioxide can cause suffocation.

6. Emergency Measures for Accidental Leaks

Emergency Steps for Chemical Leakage or Overflow: Quickly absorb with inert substances (such as sand or soil). Load liquid and solid adsorbents into suitable containers for recycling or disposal.

To avoid gelling and foaming, do not wash with water.
Personal protection: Wear suitable protective equipment. Spillage may cause people to slip.

7. Operation, Disposal, and Storage

7.1 Operation and Disposal

General Operation: Do not come into contact with eyes, do not swallow, keep the container tightly closed, ventilate thoroughly, and rinse thoroughly after operation. Only for industrial use.
Ventilation equipment: Provide comprehensive or local ventilation equipment to control air levels within exposure guidelines.

7.2 Storage

Follow standard industrial practices. More information can be obtained from specific product storage and operation guidelines or by calling Haining CoaTech Metal Surface Technology Co., Ltd.

8. Personal Protection

Respiratory Protection: Air levels should be maintained within exposure limits. When exceeding the limit, use safe air to clean the respirator. In case of emergency response or unknown air levels, use a safe positive-pressure self-contained breathing apparatus or a positive-pressure trachea with an auxiliary self-contained air supply.
Ventilation: Provide comprehensive or local ventilation equipment to control air levels within exposure guidelines.
Eye Protection: Safety goggles or single goggles
Protective Gloves: Chloroprene rubber
Other Protective Equipment: Eye wash, safety shower

9. Physical and Chemical Properties

Appearance and properties: Colorless, transparent to slightly milky-white, volatile liquid with hydrocarbon characteristics
Melting point (°C): < -60
Boiling point (°C): 158.4–198.8
Kinematic viscosity (40 °C), mm²/s: 0.93 (GB/T 265-1988)
Flash point (°C): ≥ 62.0 (GB/T 261-1983(1991))
Solubility: Practically insoluble in water
Odor: Slight
Specific gravity / density: 0.72–0.82 g/cm³

10. Stability and Reactivity

10.1 Stability/Instability

Stable
Situation to Avoid: Prolonged heating can cause decomposition
Insoluble Substances: Contact with strong oxidants and/or reducing agents will quickly release energy. Avoid contact with strong acids, bases, and substances that react with hydroxyl compounds at high temperatures.

10.2 Aggregation hazard

Does not occur

11. Toxicological Data

Important data that may be relevant to humans: In the study of skin-contact experiments with rabbits that were continuously closed, it was found that this surfactant can cause inflammation of the lungs.

12. Ecological Data

12.1 Environmental Attribution

No data available

12.2 Ecotoxicity

No data available

13. Abandonment Notice

Prohibit discharge into sewers, ground, and any water bodies. Dispose of waste in accordance with national and local laws and regulations. Different regions have different regulations, and the selection of waste is mainly based on the characteristics of waste disposal and the application of laws. Regarding the operation and application of this chemical, CoaTech does not manage the production activities or procedures of all parties involved. The information listed here is only applicable to the products that have been transported as specified in the contract, as described in the "Chemical Composition Information" section of this chemical safety technical manual. For unused and uncontaminated products, the best treatment options include using an incinerator, a thermal destruction device, and a wastewater treatment system.

14. Transportation Information

Non-hazardous materials

Proper Shipping Name: No regulations

This information does not cover all specific regulations and operational requirements related to the transportation of the chemical. More transportation information can be obtained from authorized sales representatives or customer service representatives. The transportation agency is responsible for complying with all laws, regulations, and rules regarding the transportation of this chemical.

15. Regulatory Information

This section provides excerpted regulatory information on the composition of the chemical, excluding all regulations. Users are responsible for complying with all applicable rules, regulations, and laws regarding the chemical.

16. Other Information

Suggested Use and Usage Restrictions: Industrial use only

Haining CoaTech Metal Surface Technology Co. Ltd. urges every customer or recipient of this manual to study it carefully, consult relevant experts, understand the significance of the data contained in this manual, and be vigilant about the dangers of the product. We provide the above

information in good faith and are confident that it is accurate as of the effective date indicated above, but we do not provide any express or implied warranties. Different regions have different regulatory requirements, and buyers/users should ensure compliance with all laws and regulations. The information listed here only applies to installed products. As the usage conditions of the product are not controlled by the manufacturer, the buyer/user has an obligation to determine the necessary conditions for safe use of the product due to different sources of information, such as chemical safety technical manuals from different manufacturers