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Version 1

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product Identifier

SDS # FSC-002  
 Product Name STAR SAN HB

### 1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended Use Cleaning Agent

### 1.3. Details of the Supplier of the Safety Data Sheet

#### **Supplier**

Five Star Chemicals & Supply, Inc.  
 4915 E. 52nd Ave.  
 Commerce City, CO 80022

#### **Importer**

Brouwland bvba  
 Korpelsesteenweg 86  
 3581 Beverlo, Belgium  
 0032 (0) 11/40.14.08

For further information, please contact

Contact Point Five Star Chemicals & Supply, Inc. 1-303-287-0186  
 Email Address support@fivestarchemicals.com

### 1.4. Emergency Telephone Number

For product information in case of emergency call 0032-(0) 14 58 45 45

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

Regulation (EC) No 1272/2008

Skin Corrosion/Irritation	Category 1 Sub-category B
Corrosive to metals	Category 1

Classification according to 67/548/EEC  
 Full text of R-phrases: see section 16

2.2. Label Elements**Signal Word**

Danger

**Hazard Statements**

H314 - Causes severe skin burns and eye damage

H290 - May be corrosive to metals

**Precautionary Statements - EU (§28, 1272/2008)**

P101 - If medical advice is needed, have product container or label at hand

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P310 - Immediately call a POISON CENTER or doctor/physician

P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P405 - store locked up

P501 - Rinse empty container and dispose of container in accordance with local regulations

2.3. Other Hazards**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances

Chemical Name	EC No	CAS No	Weight-%	Classification according to 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Phosphoric acid	Present	7664-38-2	50%	C; R34	Skin Corr. 1B (H314) Met. Corr. 1 (H290)	Not determined
Dodecyl benzene sulfonic acid	Present	27176-87-0	5-15%	Xn; R21/22 C;R34	Skin Corr. 1C (H314) Acute tox 4 -H302 Acute tox 3 - H311	Not determined
Proprietary	Present	Proprietary	<5%	-	Not determined	Not determined

Full text of R-phrases: see section 16Full text of H- and EUH-phrases: see section 16**Section 4: FIRST AID MEASURES**4.1. Description of First Aid Measures**Eye Contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

**Skin Contact**

Wash off immediately with plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse. Get medical attention if irritation occurs.

**Inhalation**

Remove to fresh air. If not breathing, give artificial respiration. Call a physician

**Ingestion** Promptly drink large quantities of milk, egg white, gelatin solution, or if these are not available, drink large quantities of water. Do NOT induce vomiting. Call a physician or poison control center immediately.

#### **4.2. Most Important Symptoms and Effects. Both Acute and Delayed**

**Symptoms** May cause eye burns and permanent eye damage. May cause respiratory irritation. May cause redness, pain, and severe skin burns. Irritation and corrosive burns to mouth, throat, and stomach.

#### **4.3. Indication of any Immediate Medical Attention and Special Treatment Needed**

**Note to Physicians** If the product is ingested, probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression, and convulsions may be needed.

### **Section 5: FIRE FIGHTING MEASURES**

#### **5.1. Extinguishing Media**

**Suitable Extinguishing Media**

Water. Carbon dioxide (CO<sub>2</sub>). Foam.

**Unsuitable Extinguishing Media**

None known

#### **5.2. Special Hazards Arising from the Substance or Mixture**

Contact with metals may evolve flammable hydrogen gas Heat may cause the containers to explode Contact with chlorine will evolve chlorine gas

**Hazardous Combustion Products**

Phosphorus oxides.

#### **5.3. Advice for Firefighters**

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

### **Section 6: ACCIDENTAL RELEASE MEASURES**

#### **6.1. Personal Precautions, Protective Equipment and Emergency Procedures**

**Personal Precautions**

Avoid ignition sources.

**For Emergency Responders**

Use personal protection recommended in Section 8.

#### **6.2. Environmental Precautions**

Collect spillage.

#### **6.3. Methods and Material for Containment and Cleaning Up**

**Methods for Containment**

Dike and contain spill.

**Methods for Cleaning Up**

Absorb with inert material, and then place in suitable container for chemical waste.

6.4.Reference to Other Sections

See Section 12: ECOLOGICAL INFORMATION.

**Section 7: HANDLING AND STORAGE**7.1.Precautions for Safe Handling**Advice on Safe Handling**

Use personal protection recommended in Section 8. Do not breathe fumes AND gas AND mist AND vapors AND spray.

**General Hygiene Considerations**

Handle in accordance with good industrial hygiene and safety practice.

7.2.Conditions for Safe Storage, Including any Incompatibilities**Storage Conditions**

Keep container tightly closed and store in a cool, dry and well-ventilated place.

7.3.Specific End Use(s)**Risk Management Methods (RMM)**

The information required is contained in this Safety Data Sheet.

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1.Control Parameters

Chemical Name	European Union	United Kingdom	France	Spain	Germany
Phosphoric acid 7664-38-2	TWA 1 mg/m <sup>3</sup> STEL 2 mg/m <sup>3</sup>	STEL: 2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA: 0.2 ppm TWA: 1 mg/m <sup>3</sup> STEL: 0.5 ppm STEL: 2 mg/m <sup>3</sup>	STEL: 2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> Ceiling / Peak: 4 mg/m <sup>3</sup>
Proprietary	TWA: 150 ppm; 474 mg/m <sup>3</sup> STEL 450ppm;	TWA: 150 ppm; 474 mg/m <sup>3</sup> STEL 450ppm;	-	-	-
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
Phosphoric acid 7664-38-2 ( 30-40 )	TWA: 1 mg/m <sup>3</sup> STEL: 2 mg/m <sup>3</sup>	STEL: 3 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	STEL: 2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 2 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>
Proprietary	-	-	-	-	-
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Phosphoric acid 7664-38-2	STEL 2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	STEL: 2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	STEL: 2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 2 mg/m <sup>3</sup>
Proprietary	-	-	-	-	-

8.2.Exposure Controls**Engineering Controls**

Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment****Eye/Face Protection**

Tight sealing safety goggles.

**Hand Protection**

Chemical resistant, impermeable gloves.

**Skin and Body Protection**

Suitable protective clothing.

**Respiratory Protection**

If exposure limits are exceeded, use an approved full face piece air-purifying respirator.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1.Information on Basic Physical and Chemical Properties**Physical State**

Liquid

**Appearance**

Dark amber liquid

**Odor**

Slight

**Color**

Dark amber

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	1	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	Not determined	
Flash Point	> 61.1 °C / > 142 °F	
Evaporation Rate	0.9	(Water = 1)
Flammability (Solid, Gas)	n/a-liquid	
Flammability Limits in Air		
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	1.36	
Water Solubility	Completely soluble	
Solubility(ies)	Not determined	
Partition Coefficient	Not determined	
Autoignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not an explosive	
Oxidizing Properties	Not determined	

9.2 Other Information**Section 10: STABILITY AND REACTIVITY**10.1 Reactivity

Not reactive under normal conditions.

10.2 Chemical Stability

Stable under normal conditions.

Explosion Data

Sensitivity to Mechanical Impact   None.  
Sensitivity to Static Discharge       None.

10.3 Possibility of Hazardous Reactions**Hazardous Polymerization**

Hazardous polymerization does not occur.

**Possibility of Hazardous Reactions**

None under normal processing.

10.4 Conditions to Avoid

Contact with incompatible materials.

10.5 Incompatible Materials

Alkalis. Chlorinated compounds. Soft metals.

10.6 Hazardous Decomposition Products

May give off phosphorous oxide at high heat (fire conditions).

## Section 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects

#### Acute Toxicity

**Eye Contact** Causes severe eye damage.

**Skin Contact** Causes severe skin burns.

**Inhalation** /

**Ingestion** /

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Phosphoric acid	= 1530 mg/kg ( Rat )	= 2730 mg/kg ( Rabbit )	> 850 mg/m <sup>3</sup> ( Rat ) 1 h
Dodecyl benzene sulfonic acid	= 530 mg/kg ( Rat )	= 530 mg/kg ( Rat )	
Proprietary	= 20 g/kg (Rat)	= 20800 mg/kg (Rabbit)	

**Symptoms** Please see section 4 of this SDS for symptoms.

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

Toxic to aquatic life Toxic to aquatic life with long lasting effects

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Phosphoric acid		3 - 3.5: 96 h Gambusia affinis mg/L LC50	4.6: 12 h Daphnia magna mg/L EC50
Proprietary	19000 mg/L	51600 mg/L	>10000 mg/L

### 12.2. Persistence and Degradability

Not determined.

### 12.3. Bioaccumulative Potential

Not determined.

### 12.4. Mobility in Soil

#### Mobility in soil

Not determined.

### 12.5. Results of PBT and vPvB Assessment

Not determined.

### 12.6. Other Adverse Effects

Not determined

**Section 13: DISPOSAL CONSIDERATIONS**

**13.1. Waste Treatment Methods**

<b>Waste from Residues / Unused Products</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated Packaging</b>	Improper disposal or reuse of this container may be dangerous and illegal.

**Section 14: TRANSPORT INFORMATION**

<b>Note</b>	Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances
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**IMDG**

<b>14.1 UN/ID No</b>	UN1760
<b>14.2 Proper Shipping Name</b>	Corrosive liquid, n.o.s. (Phosphoric acid, Dodecylbenzene sulfonic acid)
<b>14.3 Hazard Class</b>	8
<b>14.4 Packing Group</b>	III
<b>14.5</b>	
<b>14.6</b>	
<b>14.7</b>	

**RID**

<b>14.1 UN/ID No</b>	UN1760
<b>14.2 Proper Shipping Name</b>	Corrosive liquid, n.o.s. (Phosphoric acid, Dodecylbenzene sulfonic acid)
<b>14.3 Hazard Class</b>	8
<b>14.4 Packing Group</b>	III
<b>14.5</b>	
<b>14.6</b>	

**ADR**

<b>14.1 UN/ID No</b>	UN1760
<b>14.2 Proper Shipping Name</b>	Corrosive liquid, n.o.s. (Phosphoric acid, Dodecylbenzene sulfonic acid)
<b>14.3 Hazard Class</b>	8
<b>14.4 Packing Group</b>	III
<b>14.5</b>	
<b>14.6</b>	

**ICAO (air)**

<b>14.1 UN/ID No</b>	UN1760
<b>14.2 Proper Shipping Name</b>	Corrosive liquid, n.o.s. (Phosphoric acid, Dodecylbenzene sulfonic acid)
<b>14.3 Hazard Class</b>	8
<b>14.4 Packing Group</b>	III
<b>14.5</b>	
<b>14.6</b>	

**IATA**

<b>14.1 UN/ID No</b>	UN1760
<b>14.2 Proper Shipping Name</b>	Corrosive liquid, n.o.s. (Phosphoric acid, Dodecylbenzene sulfonic acid)
<b>14.3 Hazard Class</b>	8
<b>14.4 Packing Group</b>	III
<b>14.5</b>	
<b>14.6</b>	

**Section 15: REGULATORY INFORMATION****15.1. Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture****European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

**International Inventories**

TSCA	-
EINECS/ELINCS	-
DSL/NDSL	-
PICCS	-
ENCS	-
IECSC	-
AICS	-
KECL	-

**Legend**

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**15.2. Chemical Safety Assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier

**Section 16: OTHER INFORMATION****Full text of R-phrases referred to under sections 2 and 3**

R34 - Causes burns

**Classification procedure**

Calculation method

<b>Issue Date</b>	01-May-2009
<b>Revision Date</b>	06-November-2013
<b>Revision Note</b>	New format.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet