



# Safety Data Sheet

Date Revised: 05/19/2023

Supersedes: Not Applicable

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Trade Name** Five Star Structural Concrete® HTR

**Registration number** -

**Synonyms** SC HTR, FSSC HTR

**Issue Date** 05-19-2023

**Version number** A

**Revision date** 05-19-2023

**Supersedes date** Not Applicable

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** Concrete repair and construction

**Uses advised against** Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards.  
Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

### 1.3. Details of the supplier of the safety data sheet

**Supplier** Five Star Products  
2 Enterprise Drive  
Suite 303  
Shelton, CT 06484 U.S.A.  
00-1-203-336-7900

**1.4 Emergency telephone number:** VelocityEHS  
1-813-248-0585

## SECTION 2: Hazards identification

**2.1 Classification of the substance or mixture:** The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

### Classification according to Regulation (EC) No 1272/2008 as amended

#### Health hazards

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation
Serious eye damage/eye irritation	Category 1	H318 - Causes serious eyedamage
Skin sensitization	Category 1B	H317 - May cause an allergic skin reaction
Specific target organ toxicity - singleexposure	Category 3 respiratory tract irritation	H335 - May cause respiratoryirritation

## 2.2 Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** Calcium oxide, Calcium Aluminate Cement, Silica Sand

### Hazard Pictograms



### Signal Word

Danger

### Hazard Statements

H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H335	May cause respiratory irritation

### Precautionary Statements

#### Prevention

P260	Do not breathe dust
P271	Use only outdoors or in a well ventilated area
P280	Wear protective gloves/protective clothing/eye protection/face protection

### Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE/doctor
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention

### Storage:

Not assigned

### Disposal:

Not assigned

### Supplemental information on the label:

None

## 2.3 Other hazards:

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.



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## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### General information

Chemical Name	%	CAS-No./EC No.	REACH Registration No.	Index No.	Notes
Portland Cement	0-65	65997-15-1 266-043-4	-	-	#
Classification:	Skin Irrit. 2;H315, Eye Dam. 1;H318, Skin Sens. 1B;H317, STOT SE3; H335				
Silica Sand	30-70	14808-60-7 238-878-4	-	-	#
Classification:	Not Classified				
Cement, Alumina, Chemicals	≤ 60	65997-16-2 266-045-5	-	-	#
Classification:	Eye Irrit. 2; H319				
Calcium oxide	≤ 3	13505-78-8 215-138-9	-	-	#
Classification	Skin Irrit. 2; H315, Eye Dam.1; H318, STOT SE 3;H335				

#### List of abbreviations and symbols that may be used above:

#: This substance has workplace exposure limit(s).

#### Composition Comments:

The full text for all H-statements is displayed in section 16. All concentrations are in percent by weight. Components not listed are either non-hazardous or are below reportable limits.

## SECTION 4: First aid measures

#### General information:

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Wash contaminated clothing before reuse.

#### 4.1 Description of first aid measures

##### Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poisoncenter or doctor/physician if you feel unwell.

##### Skin Contact

Remove contaminated clothing immediately and wash skin with soap and water. In case ofeczema or other skin disorders: Seek medical attention and take along these instructions.

##### Eye Contact

Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.



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**Ingestion**

Rinse mouth. Get medical attention if symptoms occur.

**4.2 Most important symptoms and effects, both acute and delayed**

Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Dusts may irritate the respiratory tract, skin and eyes. Coughing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

**4.3 Indication of any immediate medical attention and special treatment needed**

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

**SECTION 5: Firefighting measures**

**General fire hazards**

The product is non-combustible.

**5.1 Extinguishing media**

**Suitable extinguishing media**

Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media**

No restrictions known.

**5.2 Special hazards arising from the substance or mixture**

During fire, gases hazardous to health may be formed.

**5.3 Advice for firefighters**

**Special protective equipment for firefighters**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Special fire fighting procedures**

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

**Specific methods**

Use standard firefighting procedures and consider the hazards of other involved materials.

**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment, and emergency procedures**

**For non-emergency personnel**

Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material.

**For emergency responders**

Keep unnecessary personnel away. Do not breathe dust. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. Wear appropriate protective equipment and clothing during clean-up.

**6.2 Environmental precautions**

Avoid discharge into drains, water courses or onto the ground.



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### 6.3 Methods and material for containment and cleaning up

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Minimize dust generation and accumulation. Collect dust using a vacuum cleaner equipped with HEPA filter. Stop the flow of material, if this is without risk.

Large Spills: Shovel the material into waste container. Recover and recycle, if practical. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean surface thoroughly to remove residual contamination.

### 6.4 Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Do not get this material in contact with eyes. Avoid contact with skin and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

### 7.2 Conditions for safe storage, including any incompatibilities

Store locked up. Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see section 10 of the SDS).

### 7.3 Specific end use(s)

Concrete construction and repair.

## SECTION 8: Exposure controls/Personal protection

### 8.1 Control parameters

#### Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)			
Components	Type	Value	Form
Calcium oxide (CAS1305-78-8)	TWA	2 mg/m <sup>3</sup>	-
Calcium sulfate dihydrate (CAS 13397-24-5)	TWA	4 mg/m <sup>3</sup> 10 mg/m <sup>3</sup>	Respirable dust Inhalable dust
Calcium sulfate hemihydrate (CAS10034-76-1)	TWA	4 mg/m <sup>3</sup> 10 mg/m <sup>3</sup>	Respirable dust Inhalable dust
Coke (CAS 64741-79-3)	TWA	4 mg/m <sup>3</sup> 10 mg/m <sup>3</sup>	Respirable dust Inhalable dust



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Limestone (CAS 1317-65-3)	TWA	4 mg/m3 4 mg/m3 10 mg/m3 10 mg/m3	Respirable Respirable dust Inhalable dust Inhalable
Portland Cement (CAS 65997-15-1)	TWA	4 mg/m3 10 mg/m3	Respirable dust Inhalable dust
Quartz (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable
Silica, fume (CAS 69012-64-2)	TWA	6 mg/m3 2.4 mg/m3	Inhalable dust Respirable dust

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Recommended monitoring procedures**

Follow standard monitoring procedures.

**Derived no effect levels (DNELs)**

Not available

**Predicted no effect concentrations (PNECs)**

Not available

**Exposure guidelines**

Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled

**8.2 Exposure controls**

**Appropriate engineering controls**

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment**

**General information**

Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

**Eye/Face Protection**

Wear approved chemical safety goggles. Face shield is recommended. Eye protection should meet standard EN 166.

**Skin Protection**

**Hand protection**

Wear suitable gloves tested to EN374. Nitrile or butyl rubber gloves are recommended. Use gloves with a breakthrough time of 240 minutes. Minimum glove thickness > 0.4 mm. Other suitable gloves can be recommended by the glove supplier.



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<b>Other</b>	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment. Wear a respirator with dust filter. Use filter type P2 according to EN 14387. Check with respiratory protective equipment suppliers.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>Hygiene measures</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.
<b>Environmental exposure controls</b>	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties	
<b>9.1 Information on basic physical and chemical properties</b>	
<b>Appearance</b>	
<b>Physical state</b>	Solid
<b>Form</b>	Powder
<b>Color</b>	Grey / Brown
<b>Odor</b>	Mineral
<b>Odor Threshold</b>	Not available
<b>pH</b>	Not available
<b>Melting Point / Freezing Point</b>	Not applicable
<b>Initial Boiling Point and Boiling Range</b>	Not applicable
<b>Flash Point</b>	Not applicable
<b>Evaporation Rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit – lower (%)</b>	Not applicable
<b>Explosive limit – upper (%)</b>	Not applicable
<b>Vapour Pressure</b>	Not applicable
<b>Vapour Density</b>	Not applicable



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<b>Relative Density</b>	2.7 - 3.1 (Water=1)
<b>Solubility (water)</b>	Slightly soluble in water. (0.1% - < 1%)
<b>Partition Coefficient (n-Octanol/Water)</b>	Not applicable, product is a mixture
<b>Auto-ignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not applicable
<b>Explosive Properties</b>	Not explosive
<b>Oxidizing properties</b>	Not oxidizing

**9.2 Other information** No relevant additional information available

## SECTION 10: Stability and reactivity

- 10.1 Reactivity** The product is stable and non-reactive under normal conditions of use, storage, and transport.
- 10.2 Chemical stability** Material is stable under normal conditions.
- 10.3 Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.
- 10.4 Conditions to avoid** Contact with incompatible materials.
- 10.5 Incompatible materials** Acids. Powerful oxidizers. Aluminium. Chlorine. Fluorine. Phosphorus.
- 10.6 Hazardous decomposition products** Decomposition is not expected under normal conditions of use and storage.

## SECTION 11: Toxicological information

- General information** Occupational exposure to the substance or mixture may cause adverse effects.
- Information on likely routes of exposure**
  - Inhalation** Dust may irritate respiratory system.
  - Skin contact** Causes skin irritation. May cause an allergic skin reaction.
  - Eye contact** Causes serious eye damage.
  - Ingestion** May cause discomfort if swallowed.
- Symptoms** Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Dust may irritate the respiratory tract, skin and eyes. Coughing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.





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## 11.1 Information on toxicological effects

<b>Acute Toxicity</b>	Not expected to be acutely toxic.
<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory sensitization</b>	Based on available data, the classification criteria are not met.
<b>Skin sensitization</b>	May cause an allergic skin reaction.
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

<b>12.1 Toxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>12.2 Persistence and Degradability</b>	No data is available on the degradability of this product.
<b>12.3 Bio-accumulative Potential</b>	No data available on bioaccumulation.
<b>Partition coefficient n-octanol/water (log Kow)</b>	Not applicable, product is a mixture.
<b>Bioconcentration factor (BCF)</b>	Not available.
<b>12.4 Mobility in soil</b>	Expected to have low mobility in soil.
<b>12.5 Results of PBT and vPvB assessment</b>	This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.
<b>12.6 Other adverse effects</b>	No data available.

## SECTION 13: Disposal considerations

### 13.1 Waste Treatment Methods

<b>Residual waste</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>EU waste code</b>	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.



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**Disposal methods / information**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Special Precautions**

Dispose in accordance with all applicable regulations.

**SECTION 14: TRANSPORT INFORMATION**

<b>ADR 14.1 – 14.6</b>	Not regulated as dangerous goods.
<b>RID 14.1 – 14.6</b>	Not regulated as dangerous goods.
<b>ADN 14.1 – 14.6</b>	Not regulated as dangerous goods.
<b>IATA 14.1 – 14.6</b>	Not regulated as dangerous goods.
<b>IMDG 14.1 – 14.6</b>	Not regulated as dangerous goods.
<b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable

**SECTION 15: Regulatory information**

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

**Retained direct EU regulations**

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**

Not listed.

**Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**



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Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

## Authorizations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended**

Not listed.

## Restrictions on use

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

## Other EU regulations

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

Not listed.

## Other regulations

This product is classified and labelled in accordance with the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain.

This Safety Data Sheet is compiled in accordance with REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758.

Use of this product by young persons under the age of 18 is not allowed in accordance with the Management of Health and Safety at Work Regulations 1999 [SI 1999/3242], as amended.

Follow the requirements of the Control of Substances Hazardous to Health Regulations 2002 [SI 2002/2677], as amended, when using this material.

## 15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

### List of Abbreviations

<b>ADN</b>	European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.
<b>ADR</b>	European Agreement concerning the International Carriage of Dangerous Goods by Road.
<b>CAS</b>	Chemical Abstract Service
<b>CEN</b>	European Committee for Standardization
<b>IATA</b>	International Air Transport Association
<b>IBC Code</b>	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemical



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<b>IMDG</b>	International Maritime Dangerous Goods
<b>MARPOL</b>	International Convention for the Prevention of Pollution from Ships
<b>PBT</b>	Persistent, bioaccumulative and toxic
<b>RID</b>	Regulations concerning the International Carriage of Dangerous Goods by Rail
<b>STEL</b>	Short term exposure limit
<b>TWA</b>	Time Weighted Average
<b>vPvB</b>	Very persistent and very bioaccumulative

## References

<b>ACGIH</b>	Documentation of the Threshold Limit Values and Biological Exposure Indices
<b>EPA</b>	AQUIRE database
<b>HSDB®</b>	Hazardous Substances Data Bank
<b>IARC</b>	Overall Evaluation of Carcinogenicity
<b>Monographs</b>	
<b>NTP</b>	National Toxicology Program Report on Carcinogens
<b>NLM</b>	Hazardous Substances Data Base

## Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

## Full text of any H-statements not written out in full under Sections 2 to 15

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

## Training information

Follow training instructions when handling this material.

## Disclaimer

Five Star Products, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.