



Safety Data Sheet

Date Revised: 11/16/2022

Supersedes: 03/07/2022

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

1.1. Product identifier

Trade Name Five Star® Epoxy Grout Aggregate
formerly Epoxy Grout Aggregate 201

Registration number -

Synonyms Aggregate, Component C

Issue Date 03-07-2022

Version number D

Revision date 11-16-2022

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

Identified uses Grouting and repair

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, Inc.
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
Skin sensitisation	Category 1	H317 - May cause an allergic skin reaction
Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage
Reproductive toxicity (oral)	Category 2	H361 - Suspected of damaging fertility or the unborn child by ingestion

2.2 Label elements

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

Contains: Calcium oxide, Dipotassium oxide, Silica sand, Trimanganese tetraoxide

Hazard Pictograms



Signal Word Danger

Hazard Statements

H315	Causes skin irritation
H318	Causes serious eye damage
H361	Suspected of damaging fertility or the unborn child by ingestion

Precautionary Statements

Prevention

P201	Obtain special instructions before use.
P260	Do not breathe dust
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.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTRE/doctor

Storage: Not assigned

Disposal: Not assigned

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information

Chemical Name	%	CAS-No./EC No.	REACH Registration No.	Index No.	Notes
Silica Sand	60-100	14808-60-7	-	-	#



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		238-878-4			
Classification:	STOT RE 1;H372				
Calcium oxide	≤ 12	1305-78-8 215-138-9	-	-	#
Classification:	Skin Irrit. 2;H315, Eye Dam. 1;H318, STOT SE 3;H335				
Trimanganese tetraoxide	≤ 3	1317-35-7 215-266-5	-	-	#
Classification:	Repr. 2;H361				
Dipotassium oxide	0.4-2	12136-45-7 235-227-6	-	-	-
Classification:	Skin Corr. 1A;H314, Eye Dam. 1;H318				
White mineral oil	≤ 2	8042-47-5 232-455-8	-	-	-
Classification:	Asp. Tox. 1;H304				
4,4'-Oxydi(benzenesulphonohydrazide)	≤ 0.2	80-51-3 201-286-1	-	-	-
Classification:	Acute Tox. 4;H302, Skin Irrit. 2;H315, Eye Irrit. 2;H319, Skin Sens. 1;H317, Muta. 2;H341, STOT RE 2;H373, Aquatic Chronic 2;H411				
Titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	≤ 0.5	1317-70-0 215-280-1	-	022-006-002	#
Classification:	-				

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 exposed or concerned: Get medical advice/attention. 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. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

4.1 Description of first aid measures

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.



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Skin Contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema 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
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 allergic skin disorders in sensitive individuals. 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



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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.

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). Collect dust using a vacuum cleaner equipped with HEPA filter. This product is miscible in water. 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

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimise 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. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. 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)

Grouting, concrete repair, construction

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 ³	-
Silica sand (CAS 14808-60-7)	TWA	0.1 mg/m ³	Respirable



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Silica, fume (CAS 69012-64-2)	TWA	6 mg/m3 2.4 mg/m3	Inhalable dust Respirable dust
Titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 1317-70-0)	TWA	4 mg/m3 10 mg/m3	Respirable Inhalable
Trimanganese tetraoxide (CAS 1317-35-7)	TWA	0.05 mg/m3	Respirable fraction

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 breakthrough time of 240 minutes. Minimum glove thickness > 0.4 mm. Other suitable gloves can be recommended by the glove supplier.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment. Wear respirator with dust filter. Use filter type P2 according to EN 14387. Check with respiratory protective equipment suppliers.



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Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Hygiene measures

Observe any medical surveillance requirements. 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.

Environmental exposure controls

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	
9.1 Information on basic physical and chemical properties	
Appearance Physical state Form Colour	Solid Powder Grey / Tan
Odour	Mineral
Odour Threshold	Not available
pH	Not available
Melting Point / Freezing Point	Not applicable
Initial Boiling Point and Boiling Range	Not applicable
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits Explosive limit – lower (%) Explosive limit – upper (%)	Not applicable Not applicable
Vapour Pressure	Not applicable
Vapour Density	Not applicable
Relative Density	2.7 - 3.1 (Water=1)
Solubility (ies) Solubility (water)	Slightly soluble in water. (0.1% - < 1%)
Partition Coefficient (n-Octanol/Water)	Not applicable, product is a mixture



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Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not available
Viscosity	Not applicable
Explosive Properties	Not explosive
Oxidising properties	Not oxidising

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	Powerful oxidizers. Chlorine. Fluorine
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	Causes damage to organs through prolonged or repeated exposure by inhalation. Dust may irritate respiratory system.
Skin contact	Causes skin irritation. May cause allergic skin disorders in sensitive individuals.
Eye contact	Causes serious eye damage.
Ingestion	Suspected of damaging fertility or the unborn child by ingestion.

Symptoms 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 allergic skin disorders in sensitive individuals. Dermatitis. Rash. Prolonged exposure may cause chronic effects

11.1 Information on toxicological effects

Acute Toxicity Not expected to be acutely toxic.



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Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory sensitisation	Based on available data, the classification criteria are not met.
Skin sensitisation	Based on available data, the classification criteria are not met. However: The product contains a small amount of sensitising substance which may provoke an allergic reaction among sensitive individuals
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Risk of cancer cannot be excluded with prolonged exposure. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled. According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Silica Sand (CAS 14808-60-7)	1 Carcinogenic to humans.
Titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (CAS 1317-70-0)	2B Possibly carcinogenic to humans
Reproductive toxicity	Suspected of damaging fertility or the unborn child
Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity - repeated exposure	Causes damage to organs (lungs) through prolonged or repeated exposure by inhalation.
Aspiration hazard	Based on available data, the classification criteria are not met.
Mixture versus substance information	No information available.
Other information	Symptoms may be delayed.

SECTION 12: Ecological information

12.1 Toxicity	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.
12.2 Persistence and Degradability	No data is available on the degradability of this product.
12.3 Bio-accumulative Potential	
Partition coefficient	Not applicable, product is a mixture.



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n-octanol/water (log Kow)

4,4'-
Oxydi(benzenesulphonohydrazide)
(CAS 80-51-3) 0.08

Bioconcentration factor (BCF) Not available.

12.4 Mobility in soil Expected to have low mobility in soil.

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

12.6 Other adverse effects No data available.

SECTION 13: Disposal considerations

13.1 Waste Treatment Methods

Residual waste 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.

Contaminated packaging 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.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

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

ADR 14.1 – 14.6 Not regulated as dangerous goods.

RID 14.1 – 14.6 Not regulated as dangerous goods.

ADN 14.1 – 14.6 Not regulated as dangerous goods.

IATA 14.1 – 14.6 Not regulated as dangerous goods.

IMDG 14.1 – 14.6 Not regulated as dangerous goods.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable



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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

Not listed.

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

Not listed.

Authorisations

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



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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.

New or expectant mothers should not work with this product if there is a risk due to exposure, 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

ADN	European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS	Chemical Abstract Service
CEN	European Committee for Standardization
IATA	International Air Transport Association
IBC Code	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemical
IMDG	International Maritime Dangerous Goods
MARPOL	International Convention for the Prevention of Pollution from Ships
PBT	Persistent, bioaccumulative and toxic
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STEL	Short term exposure limit
TWA	Time Weighted Average
vPvB	Very persistent and very bioaccumulative

References

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



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NLM 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

- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H314 Causes severe skin burns and eye damage.
- 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.
- H341 Suspected of causing genetic defects.
- H361 Suspected of damaging fertility or the unborn child by ingestion.

- H411 Toxic to aquatic life with long lasting effects.

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.