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1 Identification

*Product identifier

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- Trade name: Star Sure Flex Product code: 530005, 530055
- Recommended use and restriction on use
- Recommended use: Asphalt patching compound and crack filler
- Restrictions on use: No relevant information available.
- Details of the supplier of the Safety Data Sheet
- Manufacturer/Supplier:

STAR SPECIALTY TECHNOLOGY AND RESEARCH (S.T.A.R. Inc)

1150 Milestone Drive Columbus, OH 43228 Toll Free: (800)759-1912 Office: (614)870-0744 Fax: (614)870-0598 Info@StarSeal.com

Emergency telephone number:

ChemTel Inc.

(800)255-3924 (North America) +1 (813)248-0585 (International)

2 Hazard(s) identification

Classification of the substance or mixture

Carc. 2 H351 Suspected of causing cancer.

- *Label elements
- GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms:



GHS08

- Signal word: Warning
- · Hazard statements:

H351 Suspected of causing cancer.

Precautionary statements:

P201

Obtain special instructions before use.

P202

Do not handle until all safety precautions have been read and understood.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405

Store locked up.

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards There are no other hazards not otherwise classified that have been identified.





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3 Composition/information on ingredients

Chemical characterization: Mixtures

| Componen | s: | | |
|------------|-----------|-----------------|--------|
| 8052-42-4 | Asphalt | ♠ Carc. 2, H351 | 20-40% |
| 14808-60-7 | quartz | | 10-20% |
| 1332-58-7 | Clay | | 10-20% |
| 9004-34-6 | cellulose | , , | <1% |

Additional information:

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret. For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

- Description of first aid measures
- After inhalation:

Respiration of particulates is unlikely during normal usage.

Supply fresh air; consult doctor in case of complaints.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation is experienced, consult a doctor.

After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· Most important symptoms and effects, both acute and delayed:

Coughing

Breathing difficulty

Mechanical irritation to eyes.

Nausea in case of ingestion.

- Danger: Suspected of causing cancer.
- Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:

The product is not flammable.

Use fire fighting measures that suit the environment.

- For safety reasons unsuitable extinguishing agents: None.
- Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- Advice for firefighters
- Protective equipment:

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Wear self-contained respiratory protective device. Wear fully protective suit.

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6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Use personal protective equipment as required.

Use respiratory protective device against the effects of fumes/dust/aerosol.

- * Environmental precautions No special measures required.
- Methods and material for containment and cleaning up

Allow to solidify. Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- Handling
- Precautions for safe handling:

Use only outdoors or in a well-ventilated area.

Avoid splashes or spray in enclosed areas.

Take off contaminated clothing and wash it before reuse.

- Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- Requirements to be met by storerooms and receptacles:

Store in cool, dry conditions in well sealed receptacles.

Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

- Further information about storage conditions: Store locked up.
- *Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

- *Control parameters
- Components with limit values that require monitoring at the workplace:

8052-42-4 Asphalt

REL (USA) Ceiling limit value: 5* mg/m³

*15-min; See Pocket Guide App. A

TLV (USA) Long-term value: 0.5* mg/m³

*inh. fraction; as benzene-soluble aerosol; BEIp

EL (Canada) Long-term value: 0.5 mg/m³

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| | | (Cont'd. of | pa |
|-------------------|--|-------------|----|
| 5 1.70 | inhalable;IARC 2A:oxidized; IARC 2B:straight-run | | |
| EV (Canada) | Long-term value: 0.5 mg/m³ | | |
| LMDE (Massical) | fume, as benzene-soluble aerosol, inhalable | | |
| LIVIPE (IVIEXICO) | Long-term value: 0.5* mg/m³ A4, IBEp;*fracción inhalable | | |
| 14808-60-7 qua | · | | _ |
| PEL (USA) | see Quartz listing | | _ |
| REL (USA) | Long-term value: 0.05* mg/m³ | | |
| (, | *respirable dust; See Pocket Guide App. A | | |
| TLV (USA) | Long-term value: 0.025* mg/m³ | | |
| | *as respirable fraction | | |
| EL (Canada) | Long-term value: 0.025 mg/m³ ACGIH A2; IARC 1 | | |
| EV (Canada) | Long-term value: 0.10* mg/m³ | | |
| ` , | *respirable fraction | | |
| LMPE (Mexico) | Long-term value: 0.025* mg/m³ | | |
| | A2, *fracción respirable | | |
| 1332-58-7 Clay | | | |
| PEL (USA) | Long-term value: 15* 5** mg/m³ | | |
| DEL (LIOA) | *total dust **respirable fraction | | |
| REL (USA) | Long-term value: 10* 5** mg/m³ *total dust **respirable fraction | | |
| TLV (USA) | Long-term value: 2* mg/m³ | | |
| | E; as respirable fraction | | |
| EL (Canada) | Long-term value: 2 mg/m³ | | |
| EV (Canada) | Long-term value: 2(D) mg/m³ respirable | | |
| LMPE (Mexico) | Long-term value: 2* mg/m³ A4, *fracción respirable | | |
| 9004-34-6 cellu | ose | | |
| PEL (USA) | Long-term value: 15* 5** mg/m³ | | _ |
| | *total dust **respirable fraction | | |
| REL (USA) | Long-term value: 10* 5** mg/m³ | | |
| | *total dust **respirable fraction | | |
| | Long-term value: 10 mg/m³ | | |
| EL (Canada) | Long-term value: 10* 3** mg/m³ *total dust, **respirable fraction | | |
| | Long-term value: 10 mg/m³ paper fibre, total dust | | |
| LMPE (Mexico) | Long-term value: 10 mg/m³ | | |
| Ingredients with | n biological limit values: | | _ |
| 8052-42-4 Asph | alt | | |
| BEI (USA) - | | | - |
| Medi | um: urine | | |





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Time: end of shift at end of workweek
Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)

Exposure controls

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Engineering controls: Provide adequate ventilation.

Breathing equipment:

Not required under normal conditions of use.

Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.

Protection of hands:

Not required under normal conditions of use.

Gloves are advised for repeated or prolonged contact.

Wear protective gloves to handle contents of damaged or leaking units.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Eye protection:



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

· Body protection:

Not required under normal conditions of use.

Protection may be required for spills.

Limitation and supervision of exposure into the environment

No relevant information available.

9 Physical and chemical properties

| Information on basic physical Appearance: | and offermout proportion | |
|---|--------------------------|------------------|
| Form: | Viscous mastic | |
| Color: | Brown | |
| · Odor: | Asphalt | |
| Odor threshold: | Not determined. | |
| · pH-value: | 9.0-10.0 | |
| · Melting point/Melting range: | 0 °C (32 °F) | |
| Boiling point/Boiling range: | >100 °C (>212 °F) | |
| · Flash point: | Not applicable. | |
| Flammability (solid, gaseous): | Not applicable. | |
| Auto-ignition temperature: | Not determined. | |
| | ii. | (Cont'd. on page |





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|-------------------------------------|---|------------------|
| · Decomposition temperature: | Not determined. | |
| Danger of explosion: | Product does not present an explosion hazard. | |
| Explosion limits | | |
| Lower: | Not determined. | |
| Upper: | Not determined. | |
| Oxidizing properties: | Non-oxidizing. | |
| · Vapor pressure: | Not determined. | |
| Density at 20 °C (68 °F): | 1.20-1.25 g/cm³ (10.01-10.43 lbs/gal) | |
| Relative density: | Not determined. | |
| ·Vapor density: | Not determined. | |
| Evaporation rate: | Not determined. | |
| Solubility in / Miscibility with | | |
| Water: | Fully miscible, | |
| Partition coefficient (n-octanol/wa | ter): Not determined. | |
| · Viscosity | | |
| Dynamic: | Not determined. | |
| Kinematic: | Not determined. | |
| Other information | No relevant information available. | |

10 Stability and reactivity

- * Reactivity: The product is non-reactive under normal conditions of use, storage and transport.
- * Chemical stability: Stable under normal temperatures and pressures.
- * Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

- Possibility of hazardous reactions No dangerous reactions known.
- * Conditions to avoid Do not allow product to freeze.
- *Incompatible materials Oxidizers, strong bases, strong acids
- Hazardous decomposition products Carbon monoxide and carbon dioxide

11 Toxicological information

- *Information on toxicological effects
- Acute toxicity:
- *LD/LC50 values that are relevant for classification: None.
- Primary irritant effect:
- On the skin: Based on available data, the classification criteria are not met.
- On the eye: Based on available data, the classification criteria are not met.
- · Sensitization: Based on available data, the classification criteria are not met.
- Carcinogenic categories
- · IARC (International Agency for Research on Cancer):

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| 2050 40 4 4 4 1 1 | (Cont'd, of page 6 |
|--|--------------------|
| 8052-42-4 Asphalt | 2B |
| 14808-60-7 quartz | 1 |
| NTP (National Toxicology Program): | |
| 14808-60-7 quartz | K |
| OSHA-Ca (Occupational Safety & Health Administration): | |
| None of the ingredients are listed. | |
| Probable route(s) of exposure: | |

Ingestion.

Eye contact.

Skin contact.

- Acute effects (acute toxicity, irritation and corrosivity): May cause respiratory irritation.
- Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- * Carcinogenicity: Suspected of causing cancer.
- * Reproductive toxicity: Based on available data, the classification criteria are not met.
- *STOT-single exposure: Based on available data, the classification criteria are not met.
- *STOT-repeated exposure: Based on available data, the classification criteria are not met.
- *Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information

- Toxicity
- · Aquatic toxicity No relevant information available.
- Persistence and degradability No relevant information available.
- *Bioaccumulative potential: No relevant information available.
- Mobility in soil: No relevant information available.
- Additional ecological information
- General notes:

Due to available data on eliminability/decomposition and bioaccumulation potential, a prolonged damage of the environment is unlikely.

Other adverse effects No relevant information available.

13 Disposal considerations

- Waste treatment methods
- Recommendation:

Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- Uncleaned packagings
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.





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| 14 Transport information | |
|---|--------------------------|
| UN-Number DOT, ADR, IMDG, IATA | Not regulated. |
| UN proper shipping name DOT, ADR, IMDG, IATA | Not regulated. |
| Transport hazard class(es) | |
| · DOT, ADR, IMDG, IATA · Class | Not regulated. |
| Packing group DOT, ADR, IMDG, IATA | Not regulated. |
| Environmental hazards | Not applicable. |
| ·· Special precautions for user | Not applicable. |
| Transport in bulk according to Anne MARPOL73/78 and the IBC Code | x II of Not applicable. |

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA
- Section 302 (extremely hazardous substances):

None of the ingredients are listed.

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act)

All ingredients are listed.

- Proposition 65 (California)
- Chemicals known to cause cancer:

Reference to Crystalline Silica and/or Quartz is based on unbound respirable particles and is not generally applicable to product as supplied.

| 8052-42-4 | Asphalt |
|------------|---------|
| 14808-60-7 | quartz |

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

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|---------------|--|-----------------|
| Chemicals | known to cause developmental toxicity: | |
| None of the | ingredients are listed. | |
| · EPA (Envir | onmental Protection Agency): | |
| None of the | ingredients are listed. | |
| · IARC (Inter | national Agency for Research on Cancer): | |
| 8052-42-4 | | [2 |
| 14808-60-7 | quartz | 1 |
| NIOSH-Ca | (National Institute for Occupational Safety and Health): | |
| 8052-42-4 | Asphalt | |
| 14808-60-7 | quartz | |

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Carc. 2: Carcinogenicity - Category 2

Sources

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com