1 Identification

- Product identifier
  - Trade name: Flintlastic® FR-P
    Flintlastic® FR-P Coolstar
    Flintlastic® GTS-FR
    Flintlastic® Premium FR-P
    Flintlastic® Premium FR-P Coolstar
  - Product code: CT-10122-2
  - Recommended use and restriction on use
    - Recommended use: Asphalt rolled roofing
    - Restrictions on use: Contact manufacturer
  - Details of the supplier of the Safety Data Sheet
    - Manufacturer/Supplier:
      CertainTeed Corporation
      20 Moores Road
      Malvern, PA 19355
      610-893-6000
    - Emergency telephone number:
      CHEMTREC
      1-800-424-9300 (US/Canada)
      +01 703-527-3887 (International)

2 Hazard(s) identification

- Classification of the substance or mixture
  The product is not classified as hazardous according to the Globally Harmonized System (GHS).
- Label elements
  - GHS label elements: Not regulated.
  - Hazard pictograms: Not regulated.
  - Signal word: Not regulated.
  - Hazard statements: Not regulated.
  - Precautionary statements: Not regulated.
- Other hazards: There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
  - Components:
    | Components          | 8052-42-4 | Asphalt  | Carc. 2, H351 | 35-55% |
    |---------------------|-----------|----------|---------------|-------|
    | 14808-60-7          | Quartz (SiO2) | Carc. 1A, H350; STOT RE 1, H372 | 15-35% |
    | 21645-51-2          | aluminium hydroxide |              | <20%   |
    | 1318-33-8           | Colemanite | Repr. 2, H361 | <10%   |
  - Additional information:
    Non-classification as a carcinogen is based on non-respirable form of product.
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:**
    - Brush off loose particles from skin.
    - Wash with soap and water.
    - If skin irritation is experienced, consult a doctor.
  - **After eye contact:**
    - Unlikely route of exposure.
    - Remove contact lenses if worn, if possible.
    - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - **After swallowing:**
    - Unlikely route of exposure.
    - 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:** No relevant information available.
  - **Indication of any immediate medical attention and special treatment needed:**
    - No relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
  - CO2, extinguishing powder or water spray. Fight larger fires with water spray.
- **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:**
  - Wear self-contained respiratory protective device.
  - Wear fully protective suit.
6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures:
  Ensure adequate ventilation.
- Environmental precautions: Avoid release to the environment.
- Methods and material for containment and cleaning up:
  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 in well ventilated areas.
  - Information about protection against explosions and fires:
    Keep respiratory protective device available.
- Conditions for safe storage, including any incompatibilities
- Storage
  - Requirements to be met by storerooms and receptacles:
    Storage area should be dry and well-ventilated.
  - Information about storage in one common storage facility: Store away from foodstuffs.
  - Specific end use(s): No relevant information available.

8 Exposure controls/personal protection

- Control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>Control parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>8052-42-4 Asphalt</td>
<td>REL (USA)</td>
<td>Ceiling limit value: 5 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*15-min; See Pocket Guide App. A</td>
</tr>
<tr>
<td></td>
<td>TLV (USA)</td>
<td>Long-term value: 0.5 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Inh. fraction; as benzene-soluble aerosol; BEIP</td>
</tr>
<tr>
<td></td>
<td>EL (Canada)</td>
<td>Long-term value: 0.5 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inhalable, IARC 2B</td>
</tr>
</tbody>
</table>

(Cont'd. on page 4)
Trade name: Flintlastic® FR-P
   Flintlastic® FR-P Coolstar
   Flintlastic® GTS-FR
   Flintlastic® Premium FR-P
   Flintlastic® Premium FR-P Coolstar
   Flintlastic® GTS-FR Coolstar

14808-60-7 quartz

<table>
<thead>
<tr>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV (Canada)</td>
<td>Long-term value: 0.5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>fume, as benzene-soluble aerosol, inhalable</td>
</tr>
<tr>
<td>LMPE (Mexico)</td>
<td>Long-term value: 0.5* mg/m³</td>
</tr>
<tr>
<td></td>
<td>A4, IBEp;*fracción inhalable</td>
</tr>
</tbody>
</table>

14808-60-7 quartz

<table>
<thead>
<tr>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL (USA)</td>
<td>see Quartz listing</td>
</tr>
<tr>
<td>REL (USA)</td>
<td>Long-term value: 0.05* mg/m³</td>
</tr>
<tr>
<td></td>
<td>*respirable dust; See Pocket Guide App. A</td>
</tr>
<tr>
<td>TLV (USA)</td>
<td>Long-term value: 0.025* mg/m³</td>
</tr>
<tr>
<td></td>
<td>*as respirable fraction</td>
</tr>
<tr>
<td>EL (Canada)</td>
<td>Long-term value: 0.025 mg/m³</td>
</tr>
<tr>
<td></td>
<td>ACGIH A2; IARC 1</td>
</tr>
<tr>
<td>EV (Canada)</td>
<td>Long-term value: 0.10* mg/m³</td>
</tr>
<tr>
<td></td>
<td>*respirable fraction</td>
</tr>
<tr>
<td>LMPE (Mexico)</td>
<td>Long-term value: 0.025* mg/m³</td>
</tr>
<tr>
<td></td>
<td>A2, *fracción respirable</td>
</tr>
</tbody>
</table>

21645-51-2 aluminium hydroxide

<table>
<thead>
<tr>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL (USA)</td>
<td>Long-term value: 2 mg/m³</td>
</tr>
<tr>
<td></td>
<td>as Al</td>
</tr>
<tr>
<td>TLV (USA)</td>
<td>Long-term value: 1* mg/m³</td>
</tr>
<tr>
<td></td>
<td>as Al,*as respirable fraction</td>
</tr>
<tr>
<td>EL (Canada)</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
</tbody>
</table>

Ingredients with biological limit values:

8052-42-4 Asphalt

<table>
<thead>
<tr>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEI (USA)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Medium: urine</td>
</tr>
<tr>
<td></td>
<td>Time: end of shift at end of workweek</td>
</tr>
<tr>
<td></td>
<td>Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)</td>
</tr>
</tbody>
</table>

Exposure controls

- Personal protective equipment:
  - General protective and hygienic measures:
    The usual precautionary measures for handling chemicals should be followed.
    Keep away from foodstuffs, beverages and feed.
    Wash hands before breaks and at the end of work.
    Avoid close or long term contact with the skin.
    Avoid contact with the eyes.
    Pregnant women should strictly avoid inhalation or ingestion.
- Engineering controls: No relevant information available.
- Breathing equipment:
  Not required under normal conditions of use.
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Flintlastic® Premium FR-P
Flintlastic® Premium FR-P Coolstar
Flintlastic® GTS-FR Coolstar

Use respiratory protection when grinding or cutting material.

- Protection of hands:

  Protective gloves

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

- Eye protection:

  Safety glasses

- Body protection: Protective work clothing

- Limitation and supervision of exposure into the environment
  Avoid release to the environment.

- Risk management measures See Section 7 for additional information.

9 Physical and chemical properties

- Information on basic physical and chemical properties

  - Appearance:
    - Form: Solid material
    - Color: Black
  - Odor: Petroleum-like
  - Odor threshold: Not determined.

  - pH-value: Not applicable.
  - Melting point/Melting range: Not determined.
  - Boiling point/Boiling range: Not determined.

  - Flash point: Not applicable.

  - Flammability (solid, gaseous): Not determined.

  - Auto-ignition temperature: Not determined.

  - Decomposition temperature: Not determined.

  - Danger of explosion: Product does not present an explosion hazard.

  - Explosion limits
    - Lower: Not determined.
    - Upper: Not determined.
  - Oxidizing properties: Not determined.
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Flintlastic® Premium FR-P Coolstar
Flintlastic® GTS- FR Coolstar

Vapor pressure: Not determined.

- Density:
  - Relative density: Not determined.
  - Vapor density: Not applicable.
  - Evaporation rate: Not applicable.

- Solubility in / Miscibility with Water: Insoluble.

- Partition coefficient (n-octanol/water): Not determined.

Viscosity
- Dynamic: Not applicable.
- Kinematic: Not applicable.

Other information
No relevant information available.

10 Stability and reactivity

- Reactivity: No relevant information available.
- 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:
  Reacts with strong oxidizing agents.
  Reacts with strong acids and alkali.
- Conditions to avoid: Store away from oxidizing agents.
- 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.

IARC (International Agency for Research on Cancer):
14808-80-7 quartz
Safety Data Sheet
acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 07/11/2016
Revision: 07/11/2016

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8052-42-4 Asphalt

NTP (National Toxicology Program):

14808-60-7 quartz

OSHA-Ca (Occupational Safety & Health Administration):
None of the ingredients are listed.

- Probable route(s) of exposure: Skin contact.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- Carcinogenicity:
  Contains known or suspect carcinogens when inhaled. Product is in non-inhalable form and is nonclassifiable as a carcinogen.
- 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: Avoid release to the environment.
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- Other adverse effects: No relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    Smaller quantities can be disposed of with household waste.
    Contact waste processors for recycling information.
    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.

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
  · Marine pollutant:
    No

· Special precautions for user
  Not applicable.

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  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.
Safety Data Sheet
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· Trade name: Flintlastic® FR-P
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  · Flintlastic® GTS-FR Coolstar

(Cont'd. of page 8)

· TSCA (Toxic Substances Control Act)
  · Some ingredients listed.

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

· Chemicals known to cause developmental toxicity:
  · None of the ingredients are listed.

· Carcinogenic categories
  · EPA (Environmental Protection Agency):
    · None of the ingredients are listed.

· IARC (International Agency for Research on Cancer):
  · 8052-42-4 Asphalt 2B
  · 14808-60-7 quartz 1

· NIOSH-Ca (National Institute for Occupational Safety and Health):
  · 8052-42-4 Asphalt
  · 14808-60-7 quartz

· Canadian Domestic Substances List (DSL):
  · Some ingredients listed.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

· Date of preparation / last revision 07/11/2016 /

· 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

(Cont'd. on page 10)
Safety Data Sheet
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PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
LDLo: Lowest Lethal Dose Observed
Carc. 1A: Carcinogenicity – Category 1A
Carc. 2: Carcinogenicity – Category 2
Repr. 2: Reproductive toxicity – Category 2
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

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)
Safety Data Sheets, Individual Manufacturers

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Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com