

SAFETY DATA SHEET

This safety data sheet complies with the requirements of: 29CFR1910.1200

Issue Date 04-May-2015 Revision Date 04-May-2015 Version 1

Product identifier

Product Name Extra Brite Non Fiber Aluminum Roof Coating

Other means of identification

Product Code 82200 Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Reflective roof coating to be used on metal, composition, built-up, and modified bitumen

roofs.

Uses advised against For exterior use only. Do not use indoors.

Details of the supplier of the safety data sheet

Manufacturer Address FBC Chemical Corp.

P.O. Box 599 634 Route 228

Mars, Pennsylvania 16046

(724) 625-3116

Emergency telephone number

Company Phone Number 724 625 3116

Emergency Telephone Call CHEMTREC Day or Night:

Within USA and Canada: 1-800 424-9300 Outside USA and Canada: 1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| Germ cell mutagenicity | Category 1B |
|--|-------------|
| Carcinogenicity | Category 1A |
| Specific target organ toxicity (repeated exposure) | Category 1 |
| Aspiration toxicity | Category 1 |
| Flammable liquids | Category 3 |

Label elements

Emergency Overview

Danger Hazard statements May cause genetic defects May cause cancer

Causes damage to organs through prolonged or repeated exposure May be fatal if swallowed and enters airways

Flammable liquid and vapor



Appearance Viscous Physical state Liquid Odor Solvent (Mineral Spirits)

Precautionary Statements - Prevention

Obtain special instructions before use

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

Use personal protective equipment as required

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Keep away from heat/sparks/open flames/hot surfaces.

Keep container tightly closed when product is not in use.

Ground/bond container and receiving equipment

Use explosion-proof electrical/ventilating/lighting/equipment

Use only non-sparking tools

Take precautionary measures against static discharge

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Do NOT induce vomiting

In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Toxic to aquatic life with long lasting effects

Unknown acute toxicity 26.416777% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Mixture

This product is a mixture.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Synonyms None.

Chemical nature Aluminum pigmented, solvent based asphalt roof coating.

| Chemical Name | CAS No. | Weight-% | Trade Secret |
|---|------------|----------|--------------|
| Mineral Spirits (with < 0.1% Benzene) | 8052-41-3 | 30 - 40% | * |
| Asphalt (at Ambient Temperature) | 8052-42-4 | 10 - 20% | * |
| Aluminum Powder | 7429-90-5 | 10 - 20% | * |
| Mica, ground | 12001-26-2 | 10 - 20% | * |
| Petroleum Hydrocarbon Resin | 68131-87-3 | 0 - 10% | * |
| Naphtha, petroleum, hydrodesulfurized heavy | 64742-82-1 | 0 - 10% | * |
| Nonane | 111-84-2 | 0 - 10% | * |
| Trimethyl Benzene (mixed Isomers) | 25551-13-7 | 0 - 10% | * |
| Silica, quartz | 14808-60-7 | 0 - 10% | * |

4. FIRST AID MEASURES

Description of first aid measures

General advice Contains petroleum distillate. Harmful or fatal if swallowed. Vapor harmful. May affect the

brain or central nervous system causing dizziness, headache, or nausea. Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and

inhaling contents may be harmful or fatal.

Eye contact In the case of contact with eyes, rinse immediately with plenty of water and seek medical

advice.

Skin contact Wash thoroughly with soap and water. Remove contaminated clothing and shoes. Wash

contaminated clothing before reuse. In the case of skin irritation or allergic reactions see a

physician.

Inhalation Move to fresh air in case of accidental inhalation of vapors. If continued difficulty with

breathing is experienced, get medical attention immediately.

Ingestion Not an expected route of exposure. If swallowed, do not induce vomiting. Get medical

attention immediately.

Self-protection of the first aider First aider: Pay attention to self-protection!.

Most important symptoms and effects, both acute and delayed

Symptoms May cause skin irritation. May cause eye irritation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical. Carbon dioxide (CO2). Sand. Use foam or water FOG as a last resort.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

No information available.

Hazardous combustion products Thermal decomposition (burning) may release irritating, corrosive and/or toxic gases, vapors and fumes.

Explosion data

Sensitivity to Mechanical Impact Not sensitive.

Sensitivity to Static Discharge May be ignited by heat, sparks or flames.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions No action should be taken involving any personal risk or without suitable training. Use

personal protective equipment as required.

Other Information Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).

Use personal protection recommended in Section 8. For emergency responders

Environmental precautions

Environmental precautions Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

> Prevent product from entering sewers, drains, or waterways. Local authorities should be advised if significant spillages can not be contained. See Section 12 for additional

ecological information.

Methods and material for containment and cleaning up

Methods for containment Contain spillage with non-combustible absorbent material, e.g. sand, earth, diatomaceous

earth, vermiculite.

Methods for cleaning up Pick up the absorbed material (described just above) and transfer to properly labeled

containers for disposal according to local / national regulations (see Section 13).

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Remove all sources of ignition. Use only

outdoors.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a cool, dry, well-ventilated place. Keep away from heat, **Storage Conditions**

sparks, flame and other sources of ignition.

Strong acids. Strong oxidizing agents. Incompatible materials

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, is not believed to contain any hazardous material that exceeds

exposure limits established by OSHA

| expectate timile established by estimati | | | | |
|--|--------------|--------------|-------------------------------|--|
| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH | |
| Mineral Spirits (with < 0.1% | TWA: 100 ppm | TWA: 500 ppm | IDLH: 20000 mg/m ³ | |

| ъ , | | TIA/A 0000 / 3 | 0 111 4000 / 3 4= 1 |
|-----------------------------------|--|--|---|
| Benzene) | | TWA: 2900 mg/m ³ | Ceiling: 1800 mg/m ³ ₃ 15 min |
| 8052-41-3 | | (vacated) TWA: 100 ppm | TWA: 350 mg/m ³ |
| | | (vacated) TWA: 525 mg/m ³ | |
| Asphalt (at Ambient Temperature) | TWA: 0.5 mg/m ³ benzene soluble | - | Ceiling: 5 mg/m ³ fume 15 min |
| 8052-42-4 | aerosol fume, inhalable fraction | | 0 0 |
| Aluminum Powder | TWA: 1 mg/m ³ respirable fraction | TWA: 15 mg/m ³ total dust | TWA: 5 mg/m ³ Al |
| 7429-90-5 | , | TWA: 5 mg/m ³ respirable fraction | G |
| | | (vacated) TWA: 5 mg/m ³ Al | |
| | | Aluminum | |
| Mica, ground | TWA: 3 mg/m ³ respirable fraction | (vacated) TWA: 3 mg/m3 respirable | IDLH: 1500 mg/m ³ |
| 12001-26-2 | , | dust <1% Crystalline silica | TWA: 3 mg/m ³ containing <1% |
| | | TWA: 20 mppcf <1% Crystalline | Quartz respirable dust |
| | | silica | • |
| Nonane | TWA: 200 ppm | (vacated) TWA: 200 ppm | TWA: 200 ppm |
| 111-84-2 | | (vacated) TWA: 1050 mg/m ³ | TWA: 1050 mg/m ³ |
| Trimethyl Benzene (mixed Isomers) | TWA: 25 ppm | (vacated) TWA: 25 ppm | - |
| 25551-13-7 | | (vacated) TWA: 125 mg/m ³ | |
| Silica, quartz | TWA: 0.025 mg/m ³ respirable | (vacated) TWA: 0.1 mg/m ³ | IDLH: 50 mg/m ³ respirable dust |
| 14808-60-7 | fraction | respirable dust | TWA: 0.05 mg/m ³ respirable dust |
| | | : (30)/(%SiO2 + 2) mg/m ³ TWA | |
| | | total dust | |
| | | : (250)/(%SiO2 + 5) mppcf TWA | |
| | | respirable fraction | |
| | | : (10)/(%SiO2 + 2) mg/m ³ TWA | |
| | | respirable fraction | |

Appropriate engineering controls

Engineering Controls

Use natural cross ventilation, local (mechanical) pick-up, and/or general area mechanical

cross ventilation. Ventilation pattern should be designed to prevent accumulation of solvent vapors. Ventilation must be sufficient to maintain solvent vapor concentrations below the

TWA limits outlined above.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protectionWear protective gloves and protective clothing that is resistant to chemical penetration.

Respiratory protectionNo protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, a NIOSH/MSHA approved respiratory protection

should be worn.

General Hygiene Considerations Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated

clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid

AppearanceViscousOdorSolvent (Mineral Spirits)ColorAluminum (Silver)Odor thresholdNo information available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

pH N/A Not applicable

Melting point/freezing pointNo information availableBoiling point / boiling rangeNo information available

Flash point > 40.5 °C / > 105 °F Setaflash

Evaporation rate No information available Flammability (solid, gas) No information available

Flammability Limit in Air No data available.

Upper flammability limit:No information availableLower flammability limit:No information available

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Vapor pressure No information available No information available Vapor density

Specific Gravity .98 - 1.06 Water = 1g/ml

Water solubility Insoluble

Solubility in other solvents Soluble in aromatic and aliphatic

solvents.

Partition coefficient No information available No data available.

Autoignition temperature No information available **Decomposition temperature** No information available Kinematic viscosity No information available Dynamic viscosity No information available

Explosive properties Vapor accumulation could flash or explode if ignited.

Oxidizing properties None

Other Information

Softening point Not applicable

Molecular weight No information available **VOC Content (%)** No information available **Density** No information available

Bulk density Not applicable

10. STABILITY AND REACTIVITY

Reactivity

Not applicable Not applicable

Chemical stability

Stable.

Possibility of Hazardous Reactions

None under normal use.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

Avoid static discharge. Avoid heat, sparks, and open flame.

Incompatible materials

Strong acids. Strong oxidizing agents.

Hazardous Decomposition Products

Combustion may produce carbon monoxide, carbon dioxide, and other asphyxiants.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information Toxicological testing has not been conducted for this product overall. Available toxicological

data for individual ingredients are summarized below.

Inhalation Avoid breathing vapors or mists.

Eye contact Avoid contact with eyes. Contact with eyes may cause irritation.

Skin contact May cause irritation.

Ingestion If swallowed, do not induce vomiting. Get medical attention immediately. Not an expected

route of exposure.

Component Information * The IARC Monograph (Vol. 103, 2013, Bitumen and Bitumen Emissions) defines Asphalt

as 'Group 2B, Possible Carcinogen to Humans'. This definition is based on studies of exposure to Asphalt fumes at elevated temperatures. The Monograph states that

temperature plays an important role in determining the degree of exposure and also the carcinogenic potential of bitumen emissions. This same Monograph states that Asphalt is non volatile at ambient temperature. There is no data presented in the Monograph to demonstrate that Asphalt at ambient temperature is considered a carcinogen. Since the normal use of this product is at ambient temperature, the Asphalt used in this product is not listed as a carcinogen. No other national or international agency has defined Asphalt as a carcinogen.

- * No significant exposure to Crystalline Silica (Quartz) is thought to occur during the use of products in which Crystalline Silica (Quartz) is bound to other materials, such as in paints and coatings. As one reference, see California Office of Health Hazard Assessment at: http://www.oehha.org/prop65/CRNR_notices/safe_use/sylicasud2.html
- * The IARC Monograph (Vol 93, 2010, Carbon Black, Titanium Dioxide, Talc) states: "Operators in user industries who handle fluffy or pelleted Carbon Black during rubber, paint and ink production are expected to have significantly lower exposures to Carbon Black than workers in Carbon Black production. Other workers in user industries who handle it occasionally have little opportunity for exposure. And further... "End-users of these products (rubber, ink or paint) are unlikely to be exposed to airborne Carbon Black particles, which are bound within the product matrix."

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|--|--------------------|-----------------------|----------------------|
| Asphalt (at Ambient Temperature) 8052-42-4 | > 5000 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | - |
| Naphtha, petroleum, hydrodesulfurized heavy 64742-82-1 | > 5000 mg/kg (Rat) | > 3160 mg/kg (Rabbit) | - |
| Nonane 111-84-2 | - | - | = 3200 ppm (Rat) 4 h |
| Trimethyl Benzene (mixed Isomers) 25551-13-7 | = 8970 mg/kg (Rat) | - | - |
| Silica, quartz 14808-60-7 | = 500 mg/kg (Rat) | - | - |

Information on toxicological effects

Symptoms Inhalation of high vapor concentrations may cause symptoms like headache, dizziness,

tiredness, nausea and vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritationCan cause skin irritation.

Serious eye damage/eye irritation Irritating to eyes.

Irritation Irritating to eyes, respiratory system and skin.

Corrosivity Not classified.

Sensitization May cause sensitization of susceptible persons.

Germ cell mutagenicityThis product does not contain any ingredients that cause germ cell mutagenicity.

Carcinogenicity The table below indicates whether each agency (ACGIH, IARC, NTP, or OSHA) has listed

any ingredient as a carcinogen.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|----------------|-------|---------|-------|------|
| Silica, quartz | A2 | Group 1 | Known | X |
| 14808-60-7 | | • | | |

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

A4 - Not Classifiable as a Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not classifiable as a human carcinogen.

NTP (National Toxicology Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

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Reproductive toxicity
Developmental Toxicity
None known.
Teratogenicity
None known.

STOT - single exposure
STOT - repeated exposure
Aspiration hazard
No information available.
No information available.

Numerical measures of toxicity - No information available

The following values are calculated based on chapter 3.1 of the GHS document For exterior use only. Do not use indoors.

ATEmix (oral) 15,376.00 **ATEmix (dermal)** 6,686.00

12. ECOLOGICAL INFORMATION

Ecotoxicity

98.79925% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

| Chemical Name | Partition coefficient |
|----------------------------------|-----------------------|
| Asphalt (at Ambient Temperature) | 6 |
| 8052-42-4 | |

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable local, regional, national and international

laws and regulations.

Contaminated packaging Do not reuse container.

| Chemical Name | California Hazardous Waste Status |
|-----------------|-----------------------------------|
| Aluminum Powder | Ignitable powder |
| 7429-90-5 | |

14. TRANSPORT INFORMATION

DOT DOT Ground: Not regulated if shipped in containers <119 gallons(450 liters)

<u>TDG</u> unknown

ICAO (air) unknown

<u>IMDG</u> unknown

RID unknown

<u>ADR</u> unknown

<u>ADN</u> unknown

15. REGULATORY INFORMATION

International Inventories

TSCA All of the components of this product are listed on the US TSCA (Toxic Substances Control

Act) Inventory or are exempt.

DSL/NDSL All of the components of this product are listed on the DSL.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

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

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

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name | SARA 313 - Threshold Values % |
|-----------------------------------|-------------------------------|
| Aluminum Powder - 7429-90-5 | 1.0 |
| SARA 311/312 Hazard Categories | |
| Acute health hazard | Yes |
| Chronic Health Hazard | Yes |
| Fire hazard | Yes |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

| Chemical Name | California Proposition 65 |
|-----------------------------|---------------------------|
| Silica, quartz - 14808-60-7 | Carcinogen |

U.S. State Right-to-Know Regulations

This product contains the following substances regulated by various State Right-to-Know regulations.

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|---|------------|---------------|--------------|
| Mineral Spirits (with < 0.1% Benzene) 8052-41-3 | X | X | X |
| Asphalt (at Ambient Temperature) | X | X | X |

| 8052-42-4 | | | |
|--|---|---|---|
| Aluminum Powder 7429-90-5 | Х | Х | Х |
| Mica, ground 12001-26-2 | Х | Х | X |
| Nonane 111-84-2 | Х | Х | Х |
| Trimethyl Benzene (mixed Isomers) 25551-13-7 | Х | Х | Х |
| Silica, quartz 14808-60-7 | Х | Х | Х |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA Health hazards 2 Flammability 2 Instability 0 Physical and Chemical Properties -

HMIS Health hazards 2 Flammability 2 Physical hazards 0 Personal protection -

Chronic Hazard Star Legend *= Chronic Health Hazard

Prepared By FBC Administrative Services Department

 Issue Date
 04-May-2015

 Revision Date
 04-May-2015

Revision Note

No information available

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