

SAFETY DATA SHEET

EFB504S0 v7.1

en/US

**1. Identification of the substance/mixture and of the company/undertaking**

| | | |
|---------------------|--|---------------------------|
| Product name | RAVEN | |
| Product code | EFB504S0 | Formula date: 2017-07-12 |
| Intended use | Coating powder | |
| | Axalta Coating Systems, LLC Applied Corporate Center 50 Applied Bank Boulevard, Suite 300 US Glen Mills, PA 19342 | |
| Telephone | Product information | (800) 247-3886 |
| | Medical emergency | (855) 274-5698 |
| | Transportation emergency | (800) 424-9300 (CHEMTREC) |

2. Hazards identification

This preparation is hazardous per the following GHS criteria

GHS-Classification

| | |
|--|------------|
| Carcinogenicity | Category 2 |
| Target Organ Systemic Toxicant - Repeated exposure | Category 1 |

GHS-Labeling

Hazard symbols



Signal word: Danger

Hazard statements

Suspected of causing cancer.
Causes damage to organs through prolonged or repeated exposure.
May form combustible dust concentrations in air.

Precautionary statements

Obtain special instructions before use.
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Do not eat, drink or smoke when using this product.
Use personal protective equipment as required.
IF exposed or concerned: Get medical advice/ attention.
Store locked up.
Dispose of contents/container in accordance with local regulations.

Other hazards which do not result in classification

Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. May form explosible dust-air mixture if dispersed.

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity:

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0 %

3. Composition/information on ingredients

Mixture of synthetic resins and pigments

Components

| CAS-No. | Chemical name | Concentration |
|-----------|---------------|---------------|
| 1333-86-4 | Carbon black | 1.4% |

Any concentration shown as a range is due to batch variation.

Non-regulated ingredients 90 - 100%

OSHA Hazardous: Yes

4. First aid measures

Eye contact

Remove contact lenses. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Seek medical advice.

Skin contact

Do NOT use solvents or thinners. Take off contaminated clothing and shoes immediately. Wash skin thoroughly with soap and water or use recognized skin cleanser. If skin irritation persists, call a physician.

Inhalation

Avoid breathing dust. Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough. Move to fresh air. If breathing is irregular or stopped, administer artificial respiration. If symptoms persist, call a physician.

Ingestion

If swallowed, seek medical advice immediately and show this safety data sheet (SDS) or product label.

Most Important Symptoms/effects, acute and delayed**Inhalation**

Dust generated from this product may be irritating to the respiratory tract.

Ingestion

May result in gastrointestinal distress.

Skin or eye contact

Dust generated from this product may cause irritation of the eyes. Repeated or prolonged contact may cause skin irritation with discomfort and dermatitis.

Indication of Immediate medical attention and special treatment needed if necessary

No data available on the product. See section 3 and 11 for hazardous ingredients found in the product.

5. Firefighting measures

Suitable extinguishing media

Water sprayDry chemical

Extinguishing media which shall not be used for safety reasons

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High volume water jet

Hazardous combustion products

CO, CO₂, smoke, and oxides of any heavy metals that are reported in "Composition, Information on Ingredients" section.

Fire and Explosion Hazards

The product is not flammable. The product itself does not burn.

Special Protective Equipment and Fire Fighting Procedures

Full protective flameproof clothing should be worn as appropriate. Wear self-contained breathing apparatus for firefighting if necessary. In the event of fire, cool tanks with water spray. Do not allow run-off from fire fighting to enter public sewer systems or public waterways.

6. Accidental release measures

Procedures for cleaning up spills or leaks

Sweep up material and dispose of properly. Avoid breathing any dust that might be generated. Spills of fine material should be cleaned using gentle sweeping or vacuuming. Cleaning methods (e.g. compressed air) which can generate potentially combustible dust clouds should not be used.

Environmental precautions

Do not let product enter drains. Notify the respective authorities in accordance with local law in the case of contamination of rivers, lakes or waste water systems.

7. Handling and storage

Precautions for safe handling

Observe label precautions. Close container after each use. Do not transfer contents to unlabeled containers. Wash thoroughly after handling and before eating or smoking. Precautions should be taken to prevent the formation of dusts in concentrations above flammable, explosive or occupational exposure limits. Keep away from open flames, hot surfaces and sources of ignition. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. If material is a coating: do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves. Combustible dust clouds may be created where operations produce fine material (dust). Avoid formation of significant deposits of material as they may become airborne and form combustible dust clouds. Build up of fine material should be cleaned using gentle sweeping or vacuuming in accordance with best practices. Cleaning methods (e.g. compressed air) which can generate potentially combustible dust clouds should not be used.

Advice on protection against fire and explosion

Always keep in containers of same material as the original one. Airborne dusts are potentially explosive. Avoid formation of significant deposits of material as they may become airborne and form combustible dust clouds. Handling and processing operations should be conducted in accordance with best practices (e.g. NFPA-654). Never use pressure to empty container: container is not a pressure vessel. The accumulation of contaminated rags may result in spontaneous combustion. Good housekeeping standards and regular safe removal of waste materials will minimize the risks of spontaneous combustion and other fire hazards.

Storage

Requirements for storage areas and containers

Observe label precautions. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Advice on common storage

Store separately from oxidizing agents and strongly alkaline and strongly acidic materials.

8. Exposure controls/personal protection

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Engineering controls and work practices

Do not breathe dust. Provide adequate ventilation. This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation. If these are not sufficient to maintain exposure to dusts below the OEL, suitable respiratory protection must be worn.

National occupational exposure limits

| CAS-No. | Chemical name | Source | Time | Type | Value | Note |
|-----------|---------------|--------|-------------|------|-----------------------|------|
| 1333-86-4 | Carbon black | ACGIH | 8 hr | TWA | 3 mg/m ³ | |
| | | OSHA | 8 hr | TWA | 3.5 mg/m ³ | |
| | | Dupont | 8 & 12 hour | TWA | 0.5 mg/m ³ | |

Glossary

| | |
|------|---------------------------|
| CEIL | Ceiling exposure limit |
| STEL | Short term exposure limit |
| TL | Threshold limits |
| TLV | Threshold Limit Value |
| TWA | Time weighted average |
| TWAE | Time-Weighted Average |

Protective equipment

Personal protective equipment should be worn to prevent contact with eyes, skin or clothing.

Respiratory protection

Should any dust be generated, it should not be breathed. If a respirator is needed to meet applicable exposure limits, wear a properly fitted air-purifying respirator approved by NIOSH. Follow respirator manufacturer's directions for respirator use. Do not breathe dust. If respirator is required to meet applicable exposure limits, use a NIOSH approved TC-84A respirator in accordance with regulatory requirements (in the US follow OSHA standard 29CFR1910.134) and the respirator manufacturer's directions.

Eye protection

Desirable in all industrial situations.

Skin and body protection

Gloves are recommended

Hygiene measures

Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Environmental exposure controls

Do not let product enter drains.

For ecological information, refer to Ecological Information Section 12.

9. Physical and chemical properties

Appearance

Form: solid **Colour:** black

| | |
|--|-----------------|
| Flash point | Not applicable. |
| Lower Explosive Limit | Not applicable. |
| Upper Explosive Limit | Not applicable. |
| Evaporation rate | Not applicable |
| Vapor pressure of principal solvent | Not applicable. |
| Water solubility | partly miscible |
| Vapor density of principal solvent (Air = 1) | Not applicable. |
| Approx. Boiling Range | Not applicable. |
| Approx. Freezing Range | Not applicable. |
| Gallon Weight (lbs/gal) | 11.12 |

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| | | |
|--|-------------------|---------------|
| Specific Gravity | 1.33 | |
| Percent Volatile By Volume | 0.00% | |
| Percent Volatile By Weight | 0.00% | |
| Percent Solids By Volume | 100.00% | |
| Percent Solids By Weight | 100.00% | |
| pH (waterborne systems only) | Not applicable | |
| Partition coefficient: n-octanol/water | No data available | |
| Ignition temperature | 300 °C | DIN 51794 |
| Decomposition temperature | Not applicable. | |
| Viscosity (23 °C) | Not applicable. | ISO 2431-1993 |
| VOC* less exempt (lbs/gal) | 0.0 | |
| VOC* as packaged (lbs/gal) | 0.0 | |

Does not sustain combustion.

* VOC less exempt (theoretical) and VOC as packaged (theoretical) are based upon the VOC of the packaged material at the point of manufacture.

10. Stability and reactivity

Stability

Stable

Conditions to avoid

Stable under recommended storage and handling conditions (see section 7).

Materials to avoid

None reasonably foreseeable.

Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

Hazardous Polymerization

Will not occur.

Sensitivity to Static Discharge

No data available

Sensitivity to Mechanical Impact

None known.

11. Toxicological information

Information on likely routes of exposure

Inhalation

Dust generated from this product may be irritating to the respiratory tract.

Ingestion

May result in gastrointestinal distress.

Skin or eye contact

Dust generated from this product may cause irritation of the eyes. Repeated or prolonged contact may cause skin irritation with discomfort and dermatitis.

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Delayed and immediate effects and also chronic effects from short and long term exposure:

Acute oral toxicity

not hazardous

Acute dermal toxicity

not hazardous

Acute inhalation toxicity

not hazardous

% of unknown composition: 0 %

Skin corrosion/irritation

not hazardous

Serious eye damage/eye irritation

not hazardous

Respiratory sensitisation

Not classified according to GHS criteria

Skin sensitisation

Not classified according to GHS criteria

Germ cell mutagenicity

Not classified according to GHS criteria

Carcinogenicity

Carbon black Category 2

Toxicity for reproduction

Not classified according to GHS criteria

Target Organ Systemic Toxicant - Single exposure

Not classified according to GHS criteria

Target Organ Systemic Toxicant - Repeated exposure

- **Inhalation**

Respiratory system Carbon black

Aspiration toxicity

Not classified according to GHS criteria

Numerical measures of toxicity (acute toxicity estimation (ATE),etc.)

No information available.

Symptoms related to the physical, chemical and toxicological characteristics

Based on the properties of the epoxy constituent(s) and considering toxicological data on similar preparations, this preparation may be a skin sensitiser and an irritant. Low molecular epoxy constituents are irritating to eyes, mucous membranes and skin. Repeated skin contact may lead to irritation and to sensitization, possibly with cross-sensitization to other epoxies. Avoid skin and eye contact. Avoid inhalation of vapour or mist.

Whether the hazardous chemical is listed by NTP, IARC or OSHA

Carbon black IARC 2B



12. Ecological information

There are no data available on the product itself. The product should not be allowed to enter drains or watercourses.

13. Disposal considerations

Waste Disposal Method

Do not allow material to contaminate ground water systems. Incinerate or otherwise dispose of waste material in accordance with Federal, State, Provincial, and local requirements. Do not incinerate in closed containers.

14. Transport information

Not classified as dangerous in the meaning of transport regulations.

The transport information is for bulk shipments. Exceptions may apply for smaller containers.

Matters needing attention for transportation

Confirm that there is no breakage, corrosion, or leakage from the container before shipping. Be sure to prevent damage to cargo by loading so as to avoid falling, dropping, or collapse. Ship in appropriate containers with denotation of the content in accordance with the relevant statutes and rules.

15. Regulatory information

TSCA Status

In compliance with TSCA Inventory requirements for commercial purposes.

DSL Status

All components of the mixture are listed on the DSL.

Photochemical Reactivity

Non-photochemically reactive

Regulatory information

| CAS # | Ingredient | EPCRA | | | | | CERCLA | CAA |
|-----------|--------------|-------|-----|----|---------|-----|---------|-----|
| | | 302 | TPQ | RQ | 311/312 | 313 | RQ(lbs) | HAP |
| 1333-86-4 | Carbon black | N | NR | NR | C | N | NR | N |

Key:

| | |
|--------------------|---|
| EPCRA | Emergency Planning and Community Right-to-know Act (aka Title III, SARA) |
| 302 | Extremely hazardous substances |
| 311/312 Categories | F = Fire Hazard A = Acute Hazard R = Reactivity Hazard C = Chronic Hazard P = Pressure Related Hazard |
| 313 Information | Section 313 Supplier Notification - The chemicals listed above with a 'Y' in the 313 column are subject to reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know act of 1986 and of 40 CFR 372. |
| CERCLA | Comprehensive Emergency Response, Compensation and Liability Act of 1980. |

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|-----|--|
| HAP | Listed as a Clean Air Act Hazardous Air Pollutant. |
| TPQ | Threshold Planning Quantity. |
| RQ | Reportable Quantity |
| NA | not available |
| NR | not regulated |

16. Other information

HMIS rating H: 1 F: 0 R: 0

Glossary of Terms:

| | |
|-------|--|
| ACGIH | American Conference of Governmental Industrial Hygienists. |
| IARC | International Agency for Research on Cancer. |
| NTP | National Toxicology Program. |
| OEL | Occupational Exposure Limit |
| OSHA | Occupational Safety and Health Administration. |
| STEL | Short term exposure limit |
| TWA | Time-weighted average. |
| PNOR | Particles not otherwise regulated. |
| PNOC | Particles not otherwise classified. |

NOTE: The list (above) of glossary terms may be modified.

Notice from Axalta Coating Systems :

The document reflects information provided to Axalta Coating Systems by its suppliers. Information is accurate to the best of our knowledge and is subject to change as new data is received by Axalta Coating Systems. Persons receiving this information should make their own determination as to its suitability for their purposes prior to use.

The information on this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

SDS prepared by: Axalta Coating Systems Regulatory Affairs

Report version

Version Changes

7.1 3, 11

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