

| HDS IDENTIFICATION | |
|--------------------|----------------------|
| HDS Code | SDS-ZS609-SPN-JAN 25 |
| # of revision | 2 |
| Review date | January 2025 |

SAFETY DATA SHEET

SECTION 1: Identification of the hazardous chemical substance or mixture and of the supplier or manufacturer

1.1 Product name: ZS609 (All color codes).

1.2 Product Description: Mineral filler made of talc, polypropylene compound.

1.3 Recommended use: Injection moulded. Commercial use only.

1.4 Manufacturer's data:

Advanced Composites Mexico, S.A. DE C.V.

Av. Japan 306, San Francisco de los Romo Industrial Park.

San Francisco de los Romo, Ags.

Telephone: +52 (449) 925 40 10

1.5 Emergency telephone number:

Mexico:

***Emergency Number:**911

***National Communications Center / National Civil Protection System (CENACOM)**

-Mexico City and Metropolitan Area: 51 28 00 00 Exts. 11470 to 11476

-Interior of the Mexican Republic: 01 800 00 41 300

-Hours: 24 hrs., 365 days a year.

United States of America:

***CHEMTREC (USA):**+1 (800) 424-9300

SECTION 2: Hazard Identification

2.1 Hazard classification:Category 4. Acute toxicity if swallowed, or if exposed to high temperatures, harmful in case of skin contact or inhalation of processing fumes.

2.2 Pictogram and keyword:



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| HDS IDENTIFICATION | |
|--------------------|----------------------|
| HDS Code | SDS-ZS609-SPN-JAN 25 |
| # of revision | 2 |
| Review date | January 2025 |

2.3 Hazard statements:

H302+H312+H332Harmful if swallowed, in contact with skin or if fumes from high temperature processing are inhaled.

H320Causes eye irritation due to the generation of vapors from high temperature processing.

Additional information:

Spilled pellets pose a slipping hazard. Accumulation of dust may cause explosions. May contain quartz and carbon black. Quartz dust has caused cancer and lung disease in workers who inhale it over a long period of time. Animal studies suggest that carbon black may cause lung cancer if inhaled. However, inhalation of quartz or carbon black from this product is not considered likely due to the plastic resin form..

2.4 Precautionary measures:

P103Read label before use.

P210Keep away from heat, sparks, open flames, hot surfaces and other ignition sources.

P261Avoid breathing dust/fume/gas/mist/vapour/spray.

P301 + P330 + P331If swallowed, rinse mouth. Do not induce vomiting.

P305 + P351 + P338In case of eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P333+P313In case of skin irritation or rash rinse or wash affected areas. Consult a doctor.

P304+P340If inhaled, remove person to fresh air and keep in a position comfortable for breathing.

P370 + P378In case of fire, use water spray, dry chemical powder, foam or carbon dioxide to extinguish.

P403Store in a well-ventilated place.

P502Ask the manufacturer or supplier for information on recovery or recycling.

Additional information:

Maintain adequate ventilation to prevent accumulation of dust and fumes from processing. In solid form, this polymeric product is not considered to be a health hazard, although the pellets and the dust generated by them may be slightly irritating to the skin and eyes by mechanical action. If ingested, the polymer may possibly cause intestinal obstruction.

2.5 Irritability

When heated, this polymer may release fumes and/or vapors that irritate the eyes, nose, throat, and skin. Overexposure to fumes or vapors may also cause headache, nausea, shortness of breath, and coughing.

SECTION 3:Composition/information on ingredients:

| Components | CAS Registry # | Percentage % |
|--|----------------|--------------|
| Ethylene-propylene copolymer | 9010-79-1 | † |
| Talc (Magnesium Silicate) | 14807-96-6 | † |
| Quartz (crystalline silica, component of talc) | 14808-60-7 | ≤1.0 |
| *Carbon Black (Pigment) | 1333-86-4 | † |

| HDS IDENTIFICATION | |
|--------------------|----------------------|
| HDS Code | SDS-ZS609-SPN-JAN 25 |
| # of revision | 2 |
| Review date | January 2025 |

| | | |
|----------------------------------|------------|---|
| *Chromium Oxide, Cr2O3 (Pigment) | 1308-38-9 | † |
| *Titanium DioxideTiO2 (Pigment) | 13463-67-7 | † |

†Confidential commercial information

*The pigment portion may or may not be present in this material depending on the finished product, whether it is pre-colored or natural.

Comments:

The listed components (if present in this product) are encapsulated in a thermoplastic resin with limited release under normal conditions of use, transportation and storage. Increased release may occur when the resin (or the material/product made from it) is subjected to grinding, polishing, excessive heat or other processing that increases the potential for generation of particulate, fumes and/or vapors. A qualified health care specialist should evaluate the specific release potential under the user's handling conditions for this material.

SECTION 4: First aid

4.1 Most important effects: Molten plastic can cause severe burns.

4.2 First aid:

4.2.1 Skin contact: In case of skin irritation or rash rinse or wash affected areas. Seek medical attention if irritation persists. If contact with molten polymer occurs, cool immediately with cold water or ice. Do not attempt to remove any solidified material without medical assistance; seek medical attention immediately. For most burns, it may be advisable to allow the solidified material to fall off on its own. Attempted removal may cause further damage to the skin and underlying tissue. If removal is indicated (for example, the solidified material is on a critical part of the hand or face), removal with mineral oil is recommended.

4.2.2 Eye contact: If you come into contact with molten polymer, immediately flush your eyes with plenty of cool water for at least 15 minutes. Do not rub your eyes. Seek medical attention immediately.

4.2.3 Ingestion: If product is swallowed, contact a physician. Rinse mouth. Do not induce vomiting.

4.2.4 Inhalation: If irritation or dizziness occurs, evacuate to fresh air and remain at rest in a position comfortable for breathing. Seek medical attention.

4.3 Acute and delayed effects:

4.3.1 Skin contact: Prolonged exposure may cause irritation, rash, or allergic skin reaction. Wash hands, other exposed areas, and clothing regularly.

4.3.2 Eye contact/Inhalation: Dust and fumes may cause irritation to eyes, nose, throat and lungs. Flush eyes with water or fresh air. Seek medical attention if irritation persists.

4.3.3 Ingestion: May cause intestinal obstruction.

| HDS IDENTIFICATION | |
|--------------------|----------------------|
| HDS Code | SDS-ZS609-SPN-JAN 25 |
| # of revision | 2 |
| Review date | January 2025 |

SECTION 5: Fire fighting measures

5.1 Flammable properties:

5.1.1 Flammability class: Class 1 - May be heated or burned. Use caution when handling material near open flames. Material will ignite when exposed to direct flame, but will not readily burn.

5.1.2 Flash point: Not established.

5.1.3 Autoignition temperature: 280°C (>536°F), ASTM E659

5.2 Protective equipment for firefighters: Firefighters must use self-contained breathing apparatus in positive pressure mode with a full facepiece respirator when there is a possibility of exposure to hazardous vapors, fumes, or decomposition products.

5.3 Suitable extinguishing media:

- Spray water
- Dry chemical powder
- Foam
- Carbon dioxide

5.4 Fire fighting procedure: If possible, water should be applied by spraying from a misting nozzle, as this polymer is a surface burning material. High velocity water application will spread the burning layer.

- **NOTE:** Individuals should only perform firefighting procedures for which they have been trained.

5.5 Hazardous combustion products: Carbon, carbon oxides, nitrogen oxides, water, acrolein, formaldehyde, other aldehydes, ketones, alcohols, fatty acids, methane, ethane, acetylene, other organic vapors and fumes.

SECTION 6. Measures to be taken in case of accidental spill or accidental leak

6.1 Personal precautions: Restrict access to authorized personnel wearing appropriate personal protective equipment only. Spilled pellets pose a slipping hazard.

6.2 Environmental precautions: Keep spilled material away from fire, sparks and open flame. Ensure adequate ventilation.

6.3 Protective equipment: Use safety glasses that meet OSHA standard 29CFR 1910.133 / ANSI Z87.1 specifications where eye contact is not anticipated. Safety glasses that meet OSHA standard 29CFR 1019.133 / ANSI Z87.1 specifications must be worn whenever there is a possibility of eye contact.

6.4 General procedures: Where spills are possible, a comprehensive emergency response plan should be developed and implemented in the event of a spill. Plastic pellets are listed as "significant materials" by the US EPA (40CFR 122.26 (b) (12)) and may need to be discussed in a permit application for a stormwater discharge.

6.5 Small spill: Small spills can be swept up and recycled or disposed of.

| HDS IDENTIFICATION | |
|--------------------|----------------------|
| HDS Code | SDS-ZS609-SPN-JAN 25 |
| # of revision | 2 |
| Review date | January 2025 |

6.6 Large spill: Use appropriate protective equipment and clothing as described in Section 8. Contain spilled material. Transfer to safe containers. In the event of an uncontrolled spill of this material, the user should determine whether it is a reportable issue under applicable laws and regulations.

SECTION 7. Handling and storage

7.1 Handling: Handling of pellets during loading and unloading operations, as well as during manufacturing, can cause dust formation and necessary precautions should be taken for personal protection (see section 8). When transferring pellets, precautions such as grounding and bonding can prevent the build-up of static electricity.

7.2 Safe storage: Store in a dry place, away from moisture, excessive heat and ignition sources. Have emergency equipment for fires and spills.

7.3 Incompatible materials: Do not store with strong oxidizing agents such as nitric acid, sulfuric acid, halogens, hydrogen peroxide and chlorinating agents.

7.4 Hygiene: Wash your hands before eating, drinking, smoking or using the bathroom.

7.5 Additional recommendations: Keep containers closed and/or covered when not in use.

SECTION 8. Exposure controls/personal protection

8.1 Engineering controls: Ensure all national/local regulations are observed. Ensure adequate ventilation, especially in confined areas. Emergency eyewash devices and safety showers should be available in the immediate vicinity of any potential exposure.

8.2 Personal protective equipment:

8.2.1 Skin: Use heat protective gloves and clothing if there is potential for contact with heated material.

8.2.2 Eyes and face: Use safety glasses that meet OSHA 29CFR 1910.133 / ANSI Standard Z87.1 specifications where eye contact is not anticipated. Safety glasses that meet OSHA 29CFR 1019.133 / ANSI Z87.1 specifications must be worn whenever the possibility of eye contact exists.

8.2.3 Respiratory: Use a NIOSH-approved respirator whenever exposure exceeds established Occupational Exposure Limits.

8.3 Occupational exposure limits

| Component | Classification | Exposure limit |
|---|----------------|--|
| Talc (Magnesium Silicate) (14807-96-6) | ACGIH TWA | 2 mg/m ³ (Non-asbestos particles and <1% crystalline silica, respirable fraction) |
| | ACGIH Category | Not classifiable as a Human Carcinogen, does not contain asbestos fibers |

| HDS IDENTIFICATION | |
|--------------------|----------------------|
| HDS Code | SDS-ZS609-SPN-JAN 25 |
| # of revision | 2 |
| Review date | January 2025 |

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|---|-------------------|--|
| | NIOSH IREL (TWA) | 2 mg/m ³ (Does not contain asbestos and <1% respirable quartz dust) |
| | ILDH | 1,000 mg/m ³ (No asbestos and <1% quartz) |
| | NOM-010-STPS-2014 | 2 mg/m ³ (VLE-CT or P) |
| Quartz Crystalline Silica(148 08-60-7) | AGCIH TWA | 0.025 mg/m ³ (Respirable fraction) |
| | ACGIH Category | A2 – Suspected human carcinogen |
| | NIOSH REL (TWA) | 0.05 mg/m ³ (Respirable dust) |
| | IDLH | 50 mg/m ³ (Respirable dust) |
| | OSHA PEL (STEL) | 250 mppcf/%SiO ₂ +5, 10mg/m ³ /%SiO ₂ +2 |
| | NOM-010-STPS-2014 | 0.025 mg/m ³ (VLE-PPT) |
| Carbon Black (1333-86-4) | ACGIH TWA | 3.5 mg/m ³ (Respirable fraction) |
| | ACGIH Category | Confirmed animal carcinogen with unknown relevance to humans. |
| | NIOSH REL (TWA) | 3.5 mg/m ³ 1.5 3.5 mg/m ³ (Carbon black in the presence of polycyclic aromatic) |
| | US IDLH | 1750 mg/m ³ |
| | OSHA TWA | 3.5 mg/m ³ |
| | NOM-010-STPS-2014 | 3 mg/m ³ (VLE-PPT) |
| Chromium Oxide (Cr₂O₃) (1308-38-9) | ACGIH TWA | 0.05 mg/m ³ 0.5 (Cr II and Cr III compounds) 0.05 (Cr VI Soluble in water) |
| | OSHA PEL (TWA) | 1 (metal) 0.5 (Cr II & Cr III compounds) 0.005 (Cr VI compounds) |
| | NOM-010-STPS-2014 | No information available |
| Titanium dioxide (TiO₂) (13463-67-7) | OSHA TWA | 15 mg/m ³ Total dust |
| | ACGIH TWA | 10 mg/m ³ |
| | NIOSH IDLH | 5,000 mg/m ³ |
| | NOM-010-STPS-2014 | 10 mg/m ³ (VLE-PPT) |

| HDS IDENTIFICATION | |
|--------------------|----------------------|
| HDS Code | SDS-ZS609-SPN-JAN 25 |
| # of revision | 2 |
| Review date | January 2025 |

SECTION 9. Physical and chemical properties

| Property | Description |
|---|---|
| Appearance | Colored plastic pellets, approximately 1/8" to 3/8" (3mm – 10mm) in diameter. |
| Smell | Light or no odor |
| Pain threshold | Not applicable |
| Potential of hydrogen, pH | Not applicable |
| Melting point/freezing point | 160~205°C (320~401°F)/Not available |
| Initial boiling point and boiling range | None |
| Flashpoint | Data not available |
| Evaporation rate | Data not available |
| Inflammability | It will ignite when exposed to direct flame, but will not burn easily. |
| Upper/lower limit of flammability or explosiveness | Non-explosive |
| Vapor pressure | Data not available |
| Vapor density | Data not available |
| Relative density | 0.89 – 1.30 |
| Solubility | Not soluble |
| n-octanol/water partition coefficient | Data not available |
| Spontaneous ignition temperature | >280°C (>536°F), ASTM E659 |
| Decomposition temperature | Data not available |
| Goo | Not applicable |
| Molecular weight | Data not available |

Note: The above physical property data are typical values and should not be construed as a product specification.

SECTION 10. Stability and reactivity

10.1 Reactivity: Stable under recommended storage conditions (See section 7).

10.2 Chemical stability: It may be decomposed by strong oxidizing agents such as nitric acid, sulfuric acid, halogens, hydrogen peroxide and chlorinating agents.

| HDS IDENTIFICATION | |
|--------------------|----------------------|
| HDS Code | SDS-ZS609-SPN-JAN 25 |
| # of revision | 2 |
| Review date | January 2025 |

10.3 Hazardous polymerization: Not likely under recommended storage conditions.

10.4 Conditions to avoid: Avoid excessive heat, sparks or open flame. Keep away from strong oxidizing agents.

10.5 Materials to avoid: It may burn or react violently with fluorine/oxygen mixtures with 50~100% fluorine.

10.6 Hazardous decomposition products: Combustion may produce carbon, carbon oxides, nitrogen oxides, water, acrolein, formaldehyde, other aldehydes, ketones, alcohols, fatty acids, methane, ethane, acetylene, other vapors and gases.

SECTION 11. Toxicological information

11.1 Primary routes of exposure: Contact with skin and eyes

11.2 Potential health effects:

11.2.1 Eye contact: May cause irritation by mechanical abrasion.

11.2.2 Skin: Pellets are not expected to cause skin irritation. Contact with molten material may cause burns.

11.2.3 Inhalation: Not a likely route of exposure. Process fumes may cause irritation.

11.2.4 Ingestion: May cause a choking hazard if swallowed.

11.3 Immediate effects: Exposure during handling and processing may aggravate eye, skin, gastrointestinal tract and respiratory system disorders.

11.4 Delayed effects: There is no information on the long-term health effects of exposure to this product or to the fumes and dust that may result from its handling and processing.

11.5 Acute toxicity:

| Component | Toxicity measurement |
|---------------------------------------|---|
| Carbon black (1333-86-4) | LD50:> 8000 mg/kg (Oral, Rat) |
| Chromium Oxide (Cr2O3) (1308-38-9) | ATE:100.00 mg/kg body weight (Oral) ATE:1.50 mg/l/4h (Dust/mist) |
| Titanium dioxide (13463-67-7) | LD50:> 5000 mg/kg (Oral, Rat) LC50:> 6.82 mg/L (Inhaled dust/mist, male rat) |
| Quartz (14808-60-7) | LD50:> 5000 mg/kg (Oral, Rat) LD50:> 5000 mg/kg (Dermal, Rat) |

| HDS IDENTIFICATION | |
|--------------------|----------------------|
| HDS Code | SDS-ZS609-SPN-JAN 25 |
| # of revision | 2 |
| Review date | January 2025 |

11.6 Carcinogenicity: OSHA, IARC, and NTP have listed carbon black (a pigment used in dark colors) and quartz (crystalline silica, which occurs naturally in talc in low percentages) as known human carcinogens. Titanium dioxide and chromium oxide have been identified as suspected or confirmed human carcinogens. These components are essentially bound to the plastic matrix and are unlikely to contribute to workplace exposure under recommended processing conditions.

11.7 Reproductive toxicity: Not classified.

11.8 Aggravated medical conditions: There are no medical conditions aggravated by exposure to this product. However, sensitive individuals with respiratory impairment may be affected by exposure to components in processing emissions.

SECTION 12. Ecotoxicological information

12.1 Ecotoxicity: There is no data available on adverse environmental effects of this product. Ecotoxicity is expected to be low due to the limited water solubility of the polymers. However, birds, fish and other wildlife may eat pellets which may clog their intestinal tracts.

12.2 Persistence and degradability: This material is generally inert and insoluble and is not expected to have any effects on the environment. This material may deteriorate by mechanisms including photo- and thermo-oxidative degradation. Photodegraded polymers are also readily biodegradable.

12.3 Bioaccumulation potential: Data not available.

12.4 Mobility in soil: Data not available.

12.5 Other adverse effects: Data not available.

SECTION 13. Information regarding disposal of products

13.1 Product Disposition: All recovered material must be packaged, labeled, transported and disposed of in accordance with applicable laws and regulations and in accordance with good engineering practices. Recover where possible.

SECTION 14. Transport information

This product is NOT regulated as a hazardous material for all forms of transportation.

Regulation in Mexico:

- **UN number:** None.
- **UN proper shipping name:** None.
- **Transport hazard class(es):** None.
- **Packing group, if applicable:** None.
- **Environmental risks:** No additional information available.
- **Special precautions for user:** None.
- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** None.

| HDS IDENTIFICATION | |
|--------------------|----------------------|
| HDS Code | SDS-ZS609-SPN-JAN 25 |
| # of revision | 2 |
| Review date | January 2025 |

Regulation in the United States of America.

- **According to DOT:**Not regulated for transport
- **According to IMDG:**Not regulated for transport
- **According to IATA:**Not regulated for transport
- **UN Number:**None
- **Proper Shipping Name UN:**None
- **Transport hazard class(es):**None
- **Packing group:**None
- **Special precautions to be taken into account or complied with:**None.

SECTION 15. Regulatory information

15.1 United States of America

SARA TITLE III (Superfund Amendments and Reauthorization Act)*

| | |
|---------------------------|---|
| Fire | No |
| Pressure | No |
| Reactivity | No |
| Sharp | No |
| Chronic | No |
| 302/304 | This product does not contain chemicals regulated under SARA 302/304. |
| 311/312 Hazard categories | This product does not meet the criteria for any SARA hazard category. |
| 313 Toxic release | This product does not contain any chemicals listed under SARA 313. |

* Title III Notes: This product does not contain "Toxic Chemicals" above the limits.

15.2 International regulation

All ingredients in this compound are listed on the following inventories or are exempt from listing:

| Country | List of notifications |
|----------------|-----------------------|
| Australia | AICS |
| Canada | DSL |
| China | IECS |
| European Union | EINECS |
| Japan | ENCS/ISHL |
| Korea | ECL |
| New Zealand | NZIoC |
| USA | TSCA |

| HDS IDENTIFICATION | |
|--------------------|----------------------|
| HDS Code | SDS-ZS609-SPN-JAN 25 |
| # of revision | 2 |
| Review date | January 2025 |

SECTION 16. Other information including that relating to the preparation and updating of safety data sheets

- **Date of preparation:** December 2019

The information is believed to be correct, but is not exhaustive and should be used only as a guide, which is based on current knowledge of the chemical substance or mixture and is applicable to the appropriate safety precautions for the product.

The information presented herein has been obtained from sources believed to be reliable. However, because of the possibility of human or mechanical error on the part of our sources, Advanced Composites Mexicana, SA de CV or others, Advanced Composites Inc. does not guarantee the accuracy, adequacy or completeness of any information and is not responsible for any errors or omissions or for any results obtained from the use of such information. We assume no obligation or liability, express or implied, for errors or omissions of any kind, and no warranty or merchantability or fitness, express or implied, is made or should be implied. Accordingly, each user should review the information to determine if it is suitable and appropriate for all aspects of his or her intended use of this material.

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