World-leading Biomaterial Technology

Safety Data Sheet

REVISION: 01 DATE: 2023-09-08

Product Identifier

SECTION 1. IDENTIFICATION

ESR CorePro™ H106 BK Product Identifier:

Company: **Competitive Green Technologies**

Emergency +1 519 329 2525 **Telephone Number:** +1 519 588 9395 +1 519 796 9323

+1 519 890 9165

http://www.competitivegreentechnologies.com **Home Page:**

SECTION 2. HAZARD IDENTIFICATION

Most important

Not classified as hazardous

hazards:

Product effects

Adverse effects to the human health:

Prolonged and /or repeated contacts: Risk of skin sensitization. When

handled at high temperatures, can cause serious burns.

Eye contact: Contact with eyes may cause irritation. Skin contact: Substance may cause slight skin irritation.

Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting

and diarrhea.

Inhalation: Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough. Low hazard for usual industrial or commercial

Target organ effects: There were no target organ effects noted following

ingestion or dermal exposure in animal studies.

effects: This resin meets biodegradation, eco-toxicity, and disintegration criteria per

ASTM D-6400 Standard

Physical and

substance or

Environmental

Chemical hazards

Classification of the

mixture:

Not classified as physical hazards

Not classified as hazardous

Label elements according to

regulation 1272:2008

(GHS)

Symbol: Not Applicable Signal Word: Not Applicable **Hazard Statement:** Not Applicable

Precaution

Not Applicable Statement:

Precaution

Not Applicable Statement:

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Label elements according to

Not applicable

Directive 67/548/EEC

Symbol:

Not classified **Risk Phrases:** Not applicable **Safety Phrases**

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Composition %	Ingredients or impurities that contribute to the hazard
Biodegradable polymer matrix including valeric derivates	109-52-4	Up to 90%	NONE
Biocarbon – New Carbon	N/A	Up to 15%	

SECTION 4. FIRST-AID MEASURES

Inhalation: Move to fresh air. Call a physician immediately.

Rinse immediately with plenty of water for at least 15 minutes. If skin irritation **Skin Contact:**

persists, call a physician. Cool skin rapidly with cold water after contact with

hot polymer.

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15

minutes. Call a physician immediately.

Drink water as a precaution. Never give anything by mouth to an unconscious Ingestion:

person. Do not induce vomiting without medical.

Most Important Symptoms and Effects, Acute and Delayed:

Immediate Medical Attention and

Special Treatment:

In case of dust formation and inhalation, may cause coughing and sneezing.

Avoid contact with this product while helping the victim. Keep the victim rested

and warm. Do not provide anything to an unconscious person. The symptomatic treatment should include, above all, measured of support as

correction of hydro electrolytic and metabolic disturbances and respiratory

care.

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SECTION 5. FIRE-FIGHTING MEASURES

Fire Extinguishing

Media:

CO2, dry chemical, foam, alcohol or water fog

Special hazards

arising from the substance or mixture:

Formation of toxic products through combustion: Carbon oxides, Hydrogen

bromide.

Advice for

Cool closed containers with pulverized water. Firefight at safe distance.

firefighters: Evacuate the safe area.

Use self-contained breathing apparatus (SCBA) operated in positive pressure

mode and complete protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal

Precautions. **Protective**

Equipment, and **Emergency Procedures:**

Use personal protective equipment. Remove all sources of ignition. Avoid dust formation. Do not breathe vapors/dust Sweep up to prevent hazard

Product isn't flammable. Eliminate preventatively all the ignition sources

slipping.

Control of dust:

Removal of ignition

sources:

Provision of sufficient ventilation:

Prevention of

inhalation and skin. mucous membranes

and eve contact: Environmental

precautions: Methods and

material for containment and

cleaning up:

Avoid contact with eyes. Use appropriate personal protective equipment.

Not applicable. The product doesn't generate dust.

around the area. Do not smoke in the area.

Use in a well-ventilated area.

Do not let this chemical enter the environment (soil, waterways and aroundwater).

Do not dispose directly on the environment or the sewer.

Use a method that does not generate dust. Collect the material in proper container and remove them to safe place.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe

Handling: Handle in a well-ventilated area or with a general system of local

ventilation/exhaustion. Avoid contact with eyes and clothing. Remove ignition sources and heat. Do not smoke. Use exposure control measures and

personal protective equipment.

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Conditions for Safe

Storage:

Keep the product in its original packaging and in a cool, dry, safe from direct sunlight and fireproof place. Keep the container tightly sealed and closed.

Keep away from food. Keep away from children.

Incompatibilities: fluorine, strong acids, strong oxidizers, chlorated solvents

and aromatic compounds.

Hygiene advice: **Packaging**

Do not eat, drink, or smoke when using this product. Wash hands before. The resin should be packaged in aluminum bags to prevent moisture

Materials:

absorption and degradation.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate

Engineering Controls:

Provide mechanical ventilation or direct exhaustion to the external media. It is recommended safety shower and eye bath available near work site. The engineering controls measures are the most effective to reduce exposure to the product.

Individual Protection

Measures Eye/Face

Protection:

Safety goggles with lateral protection. Avoid using contact lenses while

handling this product.

Skin and Hand

protection:

Suitable protective suit.

Respiratory

protection:

Does not require specific respiratory equipment.

Thermal hazard:

Complete air-ventilated suit, with air supply, or any thermo-resistant clothing

Environmental available.

exposure controls:

Do not discharge directly into the environment or in to the sewer system. The

dilution water from firefighting can cause pollution.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Black, Solid, round or oval. None Appearance:

Not applicable.

Odour: Not applicable. **Odour Threshold:** Not applicable. pH: Not applicable.

Melting Point and

Freezing Point: Not applicable.

Initial Boiling Point and Boiling Range:

Flash Point: Not applicable. **Evaporation Rate:** Not applicable. Flammability (solid, Not applicable.

gas):

Upper and Lower

Flammability or

Explosive Limit:

Vapour Pressure: Not applicable.

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Vapour Density Not applicable.

(air = 1):

Relative Density

(water = 1): $>1g/cm^3$

Solubility: Insoluble in water.

Viscosity Not available.

Explosive Not available.

properties: Not available.

Oxidizing properties: Maximum time of storage is 24 months after production.

Other information:

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability: Combustible gases are released at the temperature over 230°C.

Conditions to Avoid: High temperatures. Incompatible materials.

Incompatible

Materials: Strong oxidizers

Hazardous Decomposition

Products: Burning produces obnoxious and toxic fumes. Aldehydes. Carbon monoxide.

Carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Acute Toxicity

LD50 (oral): Non-toxic product.

Skin Corrosion /

Irritation: Not irritating.

Serious Eye Damage

/ Irritation: Not irritating.

STOT (Specific Target Organ

Toxicity) - Single At powder or dust form, may cause respiratory irritation with coughing and

Exposure: sneezing.

Aspiration Hazard There are not any known aspiration effects.

STOT (Specific Target Organ

Toxicity) - Repeated There are not any known repeated exposure effects.

Exposure: Respiratory and/or

Skin Sensitization: Epidemiological studies showed a very low skin sensitization potential.

Carcinogenicity: There are not any known carcinogenicity toxicity effects.

Germ Cell

Mutagenicity: There are not any known germ cell mutagenicity effects.

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Reproductive Toxicity:

There are not any known reproductive toxicity effects.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity: There are not any known ecological toxicity values. Wildlife, especially small

fish may digest pellets. Pellets are not toxic but may block the digestive tract

and cause starvation or death.

Persistence and

Degradability: High persistence is expected. Meets degradability of ASTM D-6400

Standard.

Bioaccumulative

Potential: Does not bioaccumulate. Inherently biodegradable.

Mobility in Soil: Not available.

Results of PBT and

vPvB assessment: Not available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods: Controlled incineration or landfill according to local, state or national laws and

regulations concerning health and pollution.

SECTION 14. TRANSPORT INFORMATION

Land (Road/Rail): UN – "United Nations"

Recommendations on the TRANSPORT OF DANGEROUS GOODS. Model

Regulations

Waterways

(Sea/Inland): IMO – International Maritime Organization

International Maritime Dangerous Goods Code (IMDG Code)

Air: IATA – International Air Transport Association

Dangerous Goods Regulation (DGR)

Environmental

Hazards: Not Hazardous.

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code:

Consult regulations:

- International Maritime Organization. MARPOL: Articles, protocols, annexes, unified interpretations of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating

thereto, consolidated edition. IMO, London, 2007.

- International Maritime Organization. IBC code: International code for the construction and equipment of shipping carrying dangerous chemicals in bulk; With Standards and guidelines relevant to the code. IMO, London, 2007.

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SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations Safety Data Sheet Labour Organization C170 Chemicals Convention, from June 25th, 1990: Occupational Safety and Health – Toxic Substances and Agents.

Dangerous and Preparations:

Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the council on the registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

Inventories:

REACH – EGISTRATION, EVALUATION, AUTHORIZATION, AND RESTRICTION OF CHEMICALS. Commission Regulation (EC) No 1272/2008 of 16 December 2008, amending and repealing Directives 67/548/EEC and 1999/45/EC.

ECB – EUROPEAN CHEMICALS BUREAU. Directive 67/548/EEC (substances); Directive 1999/45/EC (preparations).

UN Recommendations on the TRANSPORT OF DANGEROUS GOODS.

Model Regulations, 17th Edition, 2011. TSCA – TOXIC SUBSTANCES

CONTROL ACT of 1976. All components of this product are listed or

exempted from the United States Environmental Protection Agency

Toxic Substances Control Act inventory.

SARA 302/304 - No products were found.

SARA 311/312 – Fire Hazard.

SARA 313 – This product contains no exceedance of chemical concentration that are subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

CALIFORNIA PROPOSITION 65 – This product complies with California Proposition 65.

CANADA – All components of this product are listed or exempted from DSL (Domestic Substances List).

EUROPE – Not known to contain substances of very high concern (SVHC). ROHS compliant

Restrictions: No Restrictions were found.

SECTION 16. OTHER INFORMATION

Disclaimer: Competitive Green Technologies warns that the handling of any chemical substance requires the previous knowledge of its hazards for the user. It is the responsibility of the user enterprise to promote the training of its employees and contractors about the possible risks arising from the product.

This information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information. We assume no liability resulting in its use. Users should make their own investigations to determine the suitability of the information for their purposes and Competitive Green Technologies (CGT) does not assume any liability of any kind for any claims, losses or damages, howsoever arising, even if CGT has been advised of the possibility of such damages.

Food Contact Declaration:

Generally Recognized as Safe (GRAS) - substance is GRAS under the conditions of its intended use.

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