MSDS

In accordancy with NBR 14725-4 / 2010

MATERIAL SAFETY DATA SHEET

Nr. Review: 06	Emission/Review date: 27/03/2020	Last review date: 02/04/2019	Code: FISPQ-SGQ-02

1 – IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

1.1 Product Identifier
Trade Name: V-Energy

1.2 Application of the product

V-Energy is a long durability ceramic coating with high SiO2 content, developed exclusively for treatment and coating of automotive engines. The product can be applied to all parts of engine such as plastics, metals, rubbers and hoses. V-Energy forms a flexible film that renews, protects and repels dirt. Due to its resistance to high temperatures, it prevents oxidation and early corrosion of metal parts, giving a dry touch and a shiny finish.

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier: EVC Industrial Ltda
Elaboration: Paulo Henrique Sampaio Nobre
CRQ (Regional Chemistry Council): 10400261- 10th region
Address: Rua Luiz Francisco Xavier, 520, Paupina - Cep-60872-508
Company's telephone number: (085) 3274-2896
Emergency telephone number: 0800.014.1149

2 – HAZARDS IDENTIFICATION

2.1 Product Hazards:
Adverse human health hazards: Contact with eyes may irritate.

Environmental hazards: May contaminate soil and rivers.

Specific hazards: The product is not classified as a dangerous product.

Chemical Hazard: N/A

2.2 Classification of Substance or Mixture

Acute Toxicity Classification: Category 5

2.3 Signal Words

Warning!

2.4 Hazard Pictogram

Not required

2.5 Hazard statements

H303 - May be harmful if swallowed

H320 - Causes eye irritation

2.6 Precautionary statements

P312 - Call a Poison Center/Doctor if you feel unwell

3 - COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture

3.1 Chemical Nature: Shampoo for microfibers.

3.2 Product Composition: Active, Neutralizing, Supporting, Preservative, Sequestering, Thickener, Dye, Fragrance and Water Components.

3.3 Ingredients or impurities that may contribute to the hazard:

Chemical name	CAS No.	Concentration %	Classification*	Notes
Aliphatic hydrocarbons	64742-47-8	40 to 50%	2	Aspiration hazard

*Classification system adopted: Standard ABNT-NBR 14725-Part 2: 2009. Adoption of the Globally Harmonized System for the Classification and Labeling of Chemicals, UN.

4 - FIRST-AID MEASURES

4.1 After skin contact: Remove contaminated clothes and shoes, wash the affected parts under running water.
4.2 After eye contact: Remove contact lenses. Wash with under running water. If irritation persists, consult a physician taking the product packaging or label.
4.3 After ingestion: Do not induce vomiting and immediately consult the Poison Center or the doctor taking the product label. Emergency phone number: 0800 014 8110.
4.4 Recommendations for the Doctor: Evaluate the composition described on the label.

5 – FIREFIGHTING MEASURES

5.1 Suitable extinguishing media: Non-flammable product. If a fire starts with other materials, use fire-extinguishing CO2, chemical powder and water extinguishing agent.
5.2 For safety reasons, unsuitable extinguishing agents: Do not use water extinguishing agent, when there is energized sources on site.
5.3 Specific hazards: There is no specific hazard due to its restriction containing more than 70% water.
5.4 Special fire fighting methods: The product does not present a risk for special fire methods. Non-flammable product.

5.5 Special equipment for the protection of firefighters: Due to the characteristics of the product, it is not necessary to use special equipment other than those normally used.

6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions: Remove unnecessary people from the area. Use PPE. If possible, stop the spill or leak source.
6.2 Environmental precautions: Avoid contamination of watercourses by preventing the entrance of rainwater galleries (wolf mouth). Prevent spilled product residues from reaching water collections by absorbing the product with absorbent material (e.g., sawdust, sand or clay). Contact your local security authorities.
6.3 Methods and material for containment and cleaning up: Contain and collect spill. Place the waste in a container for disposal according to local regulations. Clean preferably with water, avoiding the use of solvents. For large spills, contain the liquid in dikes and pump it into suitable containers.

7 - HANDLING AND STORAGE

7.1 Fire and explosion prevention: Do not store with incompatible materials.
7.2 Prevention of worker exposure: Wear PPE (boots, gloves, apron and protection goggles) when handling the product. Do not eat, drink or smoke when handling the product. When opening the packaging, do so in order to avoid leakage. Do not use damaged or defective personal protective and application equipment. Do not handle and/or load damaged packaging.
7.3 Precautions for safe handling: Use PPE as described in Item 8. Do not mix with chemical products, mainly with chlorine (e.g., bleach) and ammonia-based products.
7.4 Guidelines for safe handling: Use PPE as described in Item 8. Handle the product with the appropriate local exhaust or in a well-ventilated area; if in open environments, handle it with the wind. Apply only the doses recommended by the product registrant (see label).

7.5 Storage

Adequate storage conditions: Keep the product and, if necessary, leftovers in their original used packaging closed.

7.6 Storage conditions

Adequate: Keep the container properly closed at room temperature and protected from light. Store it in a duly identified location. Lock the place to prevent unauthorized people from accessing screens.
To avoid: Humid places with high temperatures.

Incompatible products and materials: Oxidizing agents. Do not store together with food, drinks, including those intended for animals.

7.7 Safe packaging materials

Recommended: Product already packed in appropriate packaging.

8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Engineering control measures: Use fans, air circulators, exhaust fans; provide adequate ventilation to the workplace.

8.2 Occupational Exposure Limits:

Component	CAS No.	Agency	Limit	Notes
Aliphatic Hydrocarbons	64742-47-8	CMRG	TWA: 165 ppm	ND

NR-15 (Regulatory standard no. 15)
ACGIH - American Conference of Governmental Industrial Hygienists
CMRG: Chemical Manufacturer's Recommended Guidelines
TWA: Time-Weighted-Average

8.3 Physical and chemical properties:

Hands: Gloves in the handling process to avoid direct and prolonged contact with the product.
Eyes: In operations where projections or splashes may occur, the use of protective goggles is recommended.

9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 State of aggregation: Liquid
9.2 pH: ND
9.3 Color: Colorless
9.4 Density at 25°C: 0,89 a 0,91 g/cm³
9.5 Solubility in water: Insoluble
9.6 Odor: Characteristic

10 - STABILITY AND REACTIVITY

10.1 Chemical stability
The product is stable at room temperature, under normal conditions of use and storage.

10.2 Conditions to avoid
Temperatures above 50 °C, exposure to direct sunlight.

10.3 Hazardous decomposition products:
Fire can release toxic gases and vapors that are harmful to human health.

10.4 Reactivity
Atmospheric air

10.5 Possibility of hazardous reactions
None

10.6 Incompatible materials or substances
None

11 - TOXICOLOGICAL INFORMATION

11.1 Local effects: The product may cause local irritation, depending on the form of contact and other symptoms, as described in Item 2. The toxicological information values set out below may not reflect the toxicity value of the product because the ingredients may be below concentration, may not be available for exposure or may not be relevant to the material as a whole.

11.2 Acute toxicity:

Name	Route	Species	Value
Product	Cutaneous	-	Not defined value, it is estimated DL50 > 5000 mg/Kg
Product	Oral	-	Not defined value, it is estimated DL50 > 5000 mg/Kg
Aliphatic hydrocarbons	Dermis	Rabbit	DL50 > 3.160 mg/kg
Aliphatic hydrocarbons	Inhalation	Rat	CL50 > 3.0 mg/L
Aliphatic hydrocarbons	Ingestion	Rat	DL50 > 5.000 mg/kg

LD – Lethal dose
LC –Lethal concentration

11.3 Skin corrosion/irritation: Based on the available information, this product does not have a classification for this criterion.
11.4 Serious eye damage/irritation: Based on the available information, this product does not have a classification for this criterion.
11.5 Skin sensitization: Based on the available information, this product does not have a classification for this criterion.
11.6 Mutagenicity: Based on the available information, this product does not have a

classification for this criterion.

11.7 Carcinogenicity: Based on the available information, this product does not have a classification for this criterion.

11.8 Chronic Toxicity: Based on the available information, this product does not have a classification for this criterion.

12 – ECOLOGICAL INFORMATION

12.1 Environmental, behavioral effects and product impacts

Mobility: ND
Environmental behavior: Effects are not expected in consequence of proper use of the product. However, its improper use and contact with soil or aquatic environment can cause imbalance and damage.
Degradability: ND
Bioaccumulation: ND
Ecotoxicity: ND

13 – TREATMENT AND DISPOSAL CONSIDERATION

13.1 Waste treatment methods:

Product: The product must be collected in containers for final determination under current legislation. The improper destination of empty packaging and product remains in the environment causes contamination of the soil, water and air, harming fauna, flora and people's health.

Used package: This package can be washed and recycled. Throw the empty packaging in the trash.

14 - TRANSPORT INFORMATION

National and international land/waterway/air regulations: Non-hazardous product according to transport regulation criteria.

15 – REGULATORY INFORMATION

15.1 National regulations: SANITATING PRODUCT NOTIFIED AT ANVISA, No. 25351.991015/2020-73, according to current legislation.

15.2 International regulations: Contact EVC Industrial for further information

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16 - OTHER INFORMATION

The information and recommendations contained in this MSDS were obtained from reputable sources and based on previous experiences, refer to this specific product and are valid when used according to the label's guidelines. This document was approved electronically.

ABBREVIATIONS AND ACRONYMS

NA: Not applicable
ND: Not Determined
OSHA: Occupational Safety and Health Administration.
LD50: Lethal dose, 50 percent
LC50: Lethal concentration, 50 percent
CAS: Chemical Abstracts Service.
TLV-TWA: Threshold Limit Value – Time-Weighted Average
TLV-STEL: Threshold Limit Value – Short-term exposure
ACGIH: American Conference of Governmental Industrial Hygienists is an organization open to all practitioners in industrial hygiene, occupational health, environmental health, or safety.
PEL: Permissible Exposure Limit
OSHA: Occupational Safety and Health Administration.
GGVE/GGVS: Gefahrgutverordnung Eisenbahn Bzw Strasse – decree on the transport of hazardous materials by land (railroad and highway).
GGV-See: Gefahrgutverdnungg-See – decree on the transport of hazardous materials by sea.
IMDG: International Maritime Dangerous Goods – international code for the transport of hazardous materials by sea.
CAO: Cargo Aircraft Only – cargo authorized for transportation by cargo plane.
PAX: Passenger Aircraft – amount allowed for transportation on a commercial airplane.
AEL: is the acceptable exposure limit. In places where the occupational exposure limits imposed by government agencies are lower than the AEL, these limits should be preferred.