

MATERIAL SAFETY DATA SHEET

Nr. Review: 04	Emission/Review date: 20/02/2020	Last review date: 10/05/2019	Code: FISPQ-SGQ-08
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1 – IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

1.1 Product Identifier

Trade Name: Revelax

1.2 Application of the product

Defect revealing product for automotive paints.

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: The product may cause irritation to the eyes, respiratory tract and skin. Prolonged contact should be avoided to avoid possible damage to health.

Environmental hazards: Dispersion in the environment can contaminate the area. Avoid entering watercourses. Dangerous for aquatic organisms and may cause death.

Physical, chemical and other specific hazards: There is no other hazard related to the product.

Main Symptoms: In case of eye contact, pain, redness, blurred vision, a burning sensation may occur. In the case of ingestion, the symptoms can be a burning sensation, abdominal pain, diarrhea, nausea and vomiting. In the case of inhalation of large quantities of the product, headaches, a feeling of weakness, dry throat, cough, drowsiness, dizziness and nausea may occur.

2.2 Classification of Substance or Mixture

Acute Toxicity Classification: Category 5

2.3 Signal Words

Warning!

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2.4 Hazard Pictogram



2.5 Hazard statements

H226 – Flammable liquid and vapor

H320 - Causes eye irritation

2.6 Precautionary statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical/ventilating/lighting/.../equipment. P242 - Utilize apenas ferramentas antifaiscantes.

P242 – Use only non-sparking tools.

P243 – Take precautionary measures against static discharge.

P264 – Wash thoroughly after handling.

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

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3 - COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture

Chemical Nature: Mixture of hydrocarbon with silicones

Ingredients or impurities that may contribute to the hazard:

Chemical name	CAS No.	Concentration %	Classification*	Notes
Isopropanol	67-63-0	30 to 40%	2 and 3	Flammable liquids, Category 2 Skin irritation, Category 2 Eye irritation, Category 2B Systemic target organ toxicity specific - single exposure, Category 3 H225: Highly flammable liquid and vapors. H336: May cause drowsiness and dizziness. H315: Causes skin irritation. H320: Causes eye irritation.

*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 First aid measures: Remove contaminated clothes and shoes, wash the affected parts with running water.

4.2 After eye contact: Remove contact lenses if present. Wash with running water. If irritation persists, consult a doctor, taking the product packaging or label.

4.3 After ingestion: Do not induce vomiting. Immediately consult the Poison Center or the doctor taking the product label.

4.4 Notes to doctor: Evaluate the composition described on the label.

5 – FIREFIGHTING MEASURES

5.1 Suitable extinguishing media: Compatible with carbon dioxide (CO²), alcohol-resistant foam, water fog and chemical powder. Not recommended: Direct water jets.

5.2 Unsuitable extinguishing media: Do not use water extinguishing agents when there are energized sources in the place.

5.3 Specific Hazards: Very dangerous when exposed to excessive heat or other sources of ignition such as sparks, open flames or flames from matches and cigarettes.

5.5 Special protective equipment for firefighting: Self-contained breathing apparatus (SCBA) with positive pressure and complete protective clothing that offers protection against heat. Containers and tanks involved in the fire must be cooled with water fog.

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6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions: Isolate spills from ignition sources. Prevent sparks or flames. Do not smoke. Do not touch damaged containers or spilled material without wearing suitable clothing. Use personal protective equipment, as described in item 8.

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.

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 Technical measures: Keep people, especially children, and pets away from the workplace.

7.2 Prevention of worker exposure: Use PPE as described in item 8.

7.3 Guidelines for safe handling: Do not eat, drink, or smoke in the workplace. Wash thoroughly after handling. Do not ingest. Avoid inhalation, aspiration, contact with eyes, and skin. Keep out of the reach of children and pets. Do not reuse the packaging for other purposes. Keep the product in its original package. Do not mix with other products.

7.4 Storage

Adequate storage conditions: keep the product in its original packaging adequately closed, in a dry and cool place, away from excessive heat and sunlight.

Fire prevention measures: Keep away from heat, sparks, open flames and hot surfaces. Do not smoke. Keep the container tightly closed. Use only non-sparking tools.

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	No. CAS	Agency	Limit	Notes
Isopropanol	67-63-0	NR-15 - ACGIH	TWA: 310 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

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8.3 Physical and chemical properties:

Hand protection: Gloves during the handling process to avoid direct and prolonged contact with the product.

Eye protection: In operations where splashes may occur, the use of safety glasses is recommended.

Hygiene measures: General control methods used in industrial hygiene should minimize exposure to the product. Do not eat, drink or smoke when handling chemicals—separate work clothes from ordinary clothes.

Respiratory protection: In the process of spraying the product, it is recommended to use a respiratory protector.

9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Aspect: Liquid

9.2 Color: Colorless

9.3 Density: 0,91 to 0,93 g/cm³

9.4 Solubility: Very miscible in water. Miscible with most organic solvents.

9.5 Odor: Characteristic

9.6 pH: 7,0 to 9,0

9.7 Flashpoint: 12°C

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

Flames and sparks

10.5 Possibility of hazardous reactions

Flames and sparks

10.6 Incompatible materials or substances

None

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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	Specie	Value
Product	Dermis	-	Estimated value LD50 > 5000 mg/Kg
Product	Ingestion	-	Estimated value LD 50 > 5000 mg/Kg
Isopropanol	Ingestion	Rat	DL50 = 5.045 mg/Kg
Isopropanol	Inhalation	Rabbit	DL50 = 6.410 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.

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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 packaging can be washed and recycled. Throw the empty packaging in the trash.

14 - TRANSPORT INFORMATION

UN: 1219

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S

Class of Risk: 3

Number of Risk: 33

15 – REGULATORY INFORMATION

15.1 National regulations: SANITATING PRODUCT NOTIFIED AT ANVISA, No. 25351.656492/2015-28, according to current legislation.

15.2 International regulations: Contact EVC Industrial for further information

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

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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.