

SAFETY DATA SHEET

Product: Extrastrong Vipafix Cement

Revision: 00

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1 - IDENTIFICATION

GHS Product identifier:	Extrastrong Vipafix Cement
Other means of identification:	472001, 472003
Recommended use of the chemical:	Adhesive for splicing conveyor belts and adhesion of materials such as rubber, wood and fabrics by cold method.
Specific restrictions on use:	This product should not be used for applications other than those recommended in this section. For more information, consult the product's technical data sheet.
Supplier's details:	BORRACHAS VIPAL S.A Address: Rua Buarque de Macedo, 365, CEP: 95320-000 - Nova Prata - RS - Brasil. Phone number: (54) 3242-3800 E-mail: vipal@vipal.com.br
Emergency phone number:	(54) 3242-3800

2 - HAZARD IDENTIFICATION

Classification of the substance or mixture:	Acute Toxicity - Oral - Category 4; Skin Corrosion/Irritation - Category 2; Serious eye damage/eye irritation - Category 2A; Skin Sensitization - Category 1; Germ Cell Mutagenicity - Category 2; Carcinogenicity - Category 1B; Specific Target Organ Toxicity – Single Exposure - Category 3 - Narcotic; Hazardous to the Aquatic Environment - Acute Hazard - Category 3; Hazardous to the Aquatic Environment - Chronic Hazard - Category 3.
Classification system adopted:	Globally Harmonized System of Classification and Labeling of Chemicals (GHS), United Nations.

GHS label elements, including precautionary statements

Pictograms:



Signal word:	DANGER
Hazard statement(s):	H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H341 Suspected of causing genetic defects. H350 May cause cancer. H412 Harmful to aquatic life with long lasting effects.
Precautionary statement(s):	PREVENTION: P203 Obtain, read and follow all safety instructions before use. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash hands thoroughly after handling. P264 + P265 Wash hands thoroughly after handling. Do not touch eyes.

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P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves, protective clothing, eye protection, face protection and hearing protection.

RESPONSE TO EMERGENCY:

P301 + P317 IF SWALLOWED: Get medical help.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P318 IF exposed or concerned, get medical advice.
P319 Get medical help if you feel unwell.
P321 Specific treatment.
P330 Rinse mouth.
P332 + P317 If skin irritation occurs: Get medical help.
P333 + P317 If skin irritation or rash occurs: Get medical help.
P337 + P317 If eye irritation persists: Get medical help.
P362 + P364 Take off contaminated clothing and wash it before reuse.

STORAGE:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

DISPOSITION:

P501 Dispose of contents and container in accordance with local regulations.

Other hazards which do not result in classification: The product has no other hazards.

3 - COMPOSITION/INFORMATION ON INGREDIENTS

MIXTURE

Components contributing to the hazard:

Product identifier	CAS/EC	Concentration range (%)
Trichloroethylene	79-01-6 201-167-4	69.60 - 100
Zinc oxide	1314-13-2 215-222-5	0.42 - 0.62

4 - FIRST-AID MEASURES

Description of necessary first-aid measures

Inhalation: Remove victim to fresh air and keep in a position that does not obstruct breathing. If you feel unwell,

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	contact a TOXICOLOGICAL INFORMATION CENTER or a doctor. Bring this document.
Skin:	Wash exposed skin with sufficient amount of water to remove the product. Remove and isolate contaminated clothing and shoes. In case of skin irritation: Consult a doctor. Bring this document.
Eye:	Rinse carefully with water for several minutes. If wearing contact lenses, remove them if it is easy and keep rinsing. If eye irritation persists: consult a doctor. Bring this document.
Ingestion:	Wash the victim's mouth with plenty of water. Never give anything by mouth to an unconscious person. If you feel unwell, contact a TOXICOLOGICAL INFORMATION CENTER or a doctor. Bring this document.
Most important symptoms/effects, acute and delayed:	May cause an allergic skin reaction with pruritus and dermatitis. Causes skin irritation with redness, pain and dryness. Causes serious eye irritation with redness and pain. Harmful if swallowed. May cause drowsiness or dizziness, may cause dizziness and nausea.
Indication of immediate medical attention and special treatment needed, if necessary:	Avoid contact with the product when helping the victim. If necessary, symptomatic treatment should include, above all, supportive measures such as correction of hydro electrolytic and metabolic disorders and respiratory assistance. In case of skin contact, do not rub the affected area.

5 - FIRE-FIGHTING MEASURES

Extinguishing media:	Appropriate: Compatible with all means of extinguishing.
Specific hazards arising from the chemical:	Combustion of the material or its packaging can form irritating and toxic gases such as carbon monoxide and dioxide. Vapors can be denser than air and tend to accumulate in low-lying or confined areas such as storm drains and basements. Containers may explode if heated.
Special protective actions for fire-fighters:	Wear positive pressure self-contained breathing apparatus (SCBA) and full protective clothing. Containers and tanks involved in the fire must be cooled with water mist.

6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:	Isolate the leakage from sources of ignition. Keep unauthorized persons away from the area. Stop the leakage if it can be done without risk. Do not smoke. Do not touch damaged containers or spilled product without proper clothing. Avoid exposure to the product. Stay in a safe place, with the wind at your back. Use personal protective equipment as described in section 8.
For emergency responders:	Wear complete PPE with safety glasses, safety gloves, suitable protective clothing and closed shoes. In case of leakage, where exposure is high, it is recommended to use a suitable respiratory protection mask.
Environmental precautions:	Avoid that the spilled product reaches waterways or sewage system.
Methods and materials for containment and cleaning up:	Use water mist or vapor suppressing foam to reduce the dispersion of vapors. Use natural or spill containment barriers. Collect spilled products and place them in appropriate containers. Adsorb the remaining product with dry sand, earth, vermiculite, or any inert product. Place the adsorbed product in proper containers and remove it to a safe place. For final disposal, proceed according to Section 13 of this document.

7 - HANDLING AND STORAGE

Precautions for safe handling

Precautions for safe handling:	Handle in a well ventilated area or with general system of ventilation/local exhaust. Avoid vapors and mists formation. Avoid exposure to the product, since the effects may not be felt immediately. Use personal protective equipment as described in section 8. Avoid contact with incompatible materials.
General hygiene:	Wash hands and face thoroughly after handling and before eating, drinking, smoking, or using the

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toilet. Contaminated clothing should be changed and washed before reuse. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for safe storage, including any incompatibilities

Technical measures for prevention of fire and explosion: It is not expected that the product presents a fire or explosion hazard.

Conditions for safe storage, including any incompatibilities: Store in a dry, well-ventilated place away from sunlight. Keep the container closed. It is not necessary addition of stabilizers and antioxidants to ensure the durability. This material may react dangerously with some incompatible materials as outlined in Section 10. Keep away from incompatible materials.

Packaging compatibilities: Similar to the original packaging.

Inadequate packaging materials: There are not known unsuitable material.

8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limit: The values below apply to workplaces.

- Trichloroethylene:
 OSHA - PEL - TWA: 100 ppm (29 CFR 1910.1000 Table Z-2; OSHA Construction and Maritime Industry PEL is 100 ppm (535 mg/m³) as an 8 hr TWA; See 29 CFR 1926.55 Table 1 and 29 CFR 1915.1000 Table Z-Shipyards);
 OSHA - PEL - STEL: 200 ppm; 300 ppm (Peak) (M2);
 NIOSH - REL - TWA: (Ca); (AC); (AA);
 ACGIH - TLV - TWA: 10 ppm;
 ACGIH - TLV - STEL: 25 ppm;
- Zinc oxide:
 OSHA - PEL - TWA: 5 mg/m³ (29 CFR 1910.1000 Table Z-1) (CFR);
 NIOSH - REL - TWA: 5 mg/m³ (TD) (FM);
 NIOSH - REL - STEL: 10 mg/m³ (FM);
 NIOSH - REL - Ceiling: 15 mg/m³ (TD);
 ACGIH - TLV - TWA: 2 mg/m³ (R);
 ACGIH - TLV - STEL: 10 mg/m³ (R).

Ca: Potential occupational carcinogen.
 AA: See NIOSH REL Appendix A;
 AC: See NIOSH REL Appendix C;
 CFR: See mentioned item in OSHA CFR;
 M2: For a single time period up to 5 min in any 2 hours;
 TD: Total dust;
 R: Respirable particulate matter;
 FM: Fumes.

Biological limit: - Trichloroethylene:
 ACGIH - BEI: Determinant: Trichloroacetic acid in urine. Sampling Time: End shift at end of workweek. Index: 15 mg/L. Notation: Ns; Determinant: Trichloroethanol in blood. Sampling Time: End shift at end of workweek. Index: 0.5 mg/L. Notation: Ns. OBS: SH.

Ns: The determinant is nonspecific, since it is also observed after exposure to other chemicals.

Other limits and values: Not established.

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Appropriate engineering controls: A risk assessment is recommended to define the engineering control measures necessary to eliminate or minimize the risk. These measures help to reduce exposure to the product. Maintain atmospheric concentrations of the constituents of the material below occupational exposure limits indicated.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection: Fully enclosed protective goggles.

Skin protection: Impervious clothing or protective clothing chemically resistant to the product. Nitrile gloves.

Respiratory protection: Semifacial mask with filter for organic vapors.

Thermal hazards: It does not present thermal hazards.

9 - PHYSICAL AND CHEMICAL PROPERTIES

Aspect: Liquid, viscous.

Color: Beige.

Odour: Characteristic.

Melting point/freezing point: Not available.

Boiling point or initial boiling point and boiling range: Not available.

Flammability: Not available.

Lower and upper explosion limit/flammability limit: Not available.

Flash point: Not available.

Auto-ignition temperature: - Trichloroethylene:
410 °C (770 °F).

Decomposition temperature: Not available.

pH: Not available.

Kinematic viscosity: Not available.

Solubility(ies): Immiscible in water.

Partition coefficient n-octanol/water (log value): - Trichloroethylene:
log K_{ow} : 2.53.

Vapour pressure: - Trichloroethylene:
9.9 kPa at 25 °C (77 °F).

Relative vapour density: Not available.

Density and/or relative density: Absolute density: 1.41 to 1.44 g/cm³ at 23 °C (73.4 °F).

Particle characteristics: Not applicable.

Other information: Dynamic viscosity: 2610 to 3110 cP (2.61 to 3.11 Pa.s) at 23 °C (73.4 °F).

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10 - STABILITY AND REACTIVITY

Reactivity:	Reactivity is not to be expected under normal conditions of temperature and pressure.
Chemical stability:	Stable under normal temperature and pressure conditions.
Possibility of hazardous reactions:	- <u>Zinc oxide</u> : Reacts violently with oils, aluminum powder and chlorinated rubber. Risk of explosion on contact with magnesium.
Conditions to avoid:	High temperatures. Contact with incompatible materials.
Incompatible material:	Aluminum, carbon monoxide, chlorinated rubber, hydrogen, magnesium, oils, potassium hydroxide, sodium hydroxide and strong oxidizers.
Hazardous decomposition products:	No dangerous decomposition products are known.

11 - TOXICOLOGICAL INFORMATION

Acute toxicity:	Product not classified as acute toxic by dermal and inhalation. Harmful if swallowed. ATEmix Dusts and mists (4h): > 5 mg/L. ATEmix Oral: 308,046 mg/kg. ATEmix Dermal: > 5000 mg/kg. Information regarding to: - <u>Trichloroethylene</u> : LD ₅₀ Oral (mice): 268 mg/kg.
Skin corrosion/irritation:	Causes skin irritation with redness, pain and dryness.
Serious eye damage/irritation:	Causes serious eye irritation with redness and pain.
Respiratory or skin sensitization:	May cause an allergic skin reaction with pruritus and dermatitis. It is not expected to cause respiratory sensitization. The ingredient Trichloroethylene is classified as a skin sensitizer and contributes to this product classification.
Germ cell mutagenicity:	Suspected of causing genetic defects.
Carcinogenicity:	May cause cancer. Information regarding to: - <u>Trichloroethylene</u> : Carcinogenic to humans (Group 1 – IARC).
Reproductive toxicity:	It is not expected to be reproductively toxic.
STOT - Single exposure:	May cause drowsiness or dizziness, may cause dizziness and nausea.
STOT - Repeated exposure:	It is not expected to exhibit specific target organ toxicity on repeated exposure.
Aspiration hazard:	It is not expected to present an aspiration hazard.

12 - ECOLOGICAL INFORMATION

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Toxicity:	Harmful to aquatic life with long lasting effects. Information regarding to: - <u>Trichloroethylene:</u> LC ₅₀ (<i>Limanda limanda</i> , 96 h): 16 mg/L; EC ₅₀ (<i>Daphnia magna</i> , 48 h): 20.8 mg/L; ErC ₅₀ (<i>Chlamydomonas reinhardtii</i> , 72 h): 36.5 mg/L. - <u>Zinc oxide:</u> LC ₅₀ (<i>Pseudokirchneriella subcapitata</i> , 72 h): 0.046 mg/L; NOEC (<i>Oncorhynchus mykiss</i> , 30d): 0.058 mg/L; NOEC (<i>Daphnia magna</i> , 21d): 0.058 mg/L; EC ₅₀ (<i>Ceriodaphnia dubia</i> , 48 h): 0.147 - 0.228 mg/L; LC ₅₀ (<i>Danio rerio</i> , 96 h): 0.330 - 0.760 mg/L.
Persistence and degradability:	It is expected that the product presents persistence and it is not considered readily biodegradable. Information regarding to: - <u>Trichloroethylene:</u> Biodegradability rate: 19% in 28 days.
Bioaccumulative potential:	It is not expected to have a high bioaccumulative potential.
Mobility in soil:	Not determined.
Other adverse effects:	No other environmental effects known.

13 - DISPOSAL CONSIDERATIONS

Disposal methods

Must be disposed of as waste in compliance with local regulations. The treatment and disposal should be evaluated for each specific product.

Keep the product remains in its original and properly closed containers. Disposal should be performed as established for the product.

14 - TRANSPORT INFORMATION

Road:	UN - United Nations: Model Regulations: • Recommendations on the Transport of Dangerous Goods.
UN number:	1710
Proper shipping name:	TRICHLOROETHYLENE
Primary risk class or division:	6.1
Subsidiary risk class or division:	NA
Packing group:	III
Environmental hazards:	The product is not considered dangerous for the environment for land transport.
Railway regulations:	COTIF - Convention concerning International Carriage by Rail: • Appendix C: RID - Regulations concerning the International Carriage of Dangerous Goods by Rail.
UN number:	1710

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Proper shipping name:	TRICHLOROETHYLENE
Primary risk class or division:	6.1
Subsidiary risk class or division:	NA
Packing group:	III
Environmental hazards:	The product is not considered dangerous for the environment in rail transport.
Sea:	IMO - International Maritime Organization: • IMDG Code - International Maritime Dangerous Goods Code.
UN number:	1710
Proper shipping name:	TRICHLOROETHYLENE
Primary risk class or division:	6.1
Subsidiary risk class or division:	NA
Packing group:	III
Environmental hazards:	The product is considered a marine pollutant.
EmS:	F-A,S-A
Air:	IATA - International Air Transport Association: • DGR - Dangerous Goods Regulation.
UN number:	1710
Proper shipping name:	TRICHLOROETHYLENE
Primary risk class or division:	6.1
Subsidiary risk class or division:	NA
Packing group:	III
Environmental hazards:	The product is not considered dangerous for the environment for air transport.
Special precautions for user:	Not applicable.
Maritime transport in bulk according to IMO instruments:	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, 2006; • 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.

15 - REGULATORY INFORMATION

Convention concerning Safety in the use of Chemicals at Work (Convention 170) - International Labour Organization, 1990.

TSCA: We certify that all the components of this product are listed on the TSCA Inventory Active.

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16 - OTHER INFORMATION

This document was prepared based on current knowledge about the proper product handling and under normal conditions of use, in accordance with the application specified on the packaging. Any other use of the product involving their combination with other products, and use various forms of those indicated, are the responsibility of the user. Warns that the handling of any chemical substance requires the prior knowledge of its hazards for the user. In the workplace it is for the user company's product promotes training of its collaborators about the possible risks arising from exposure to the chemical.

Change control:

Version	Manufacture date	Changes
00	05/23/2024	Elaboration

Abbreviations:

ACGIH - American Conference of Governmental Industrial Hygienists;

ATEmix - Acute Toxicity Estimate of the mixture;

BEI - Biological Exposure Index;

CAS - Chemical Abstracts Service;

Ceiling - The concentration that should not be exceeded during any part of the working exposure;

EC₅₀- Effective concentration of substance that causes 50 % of the maximum response;ErC₅₀- Effective concentration that results in a 50% reduction in the growth rate;

IARC - International Agency for Research on Cancer;

K_{ow}- Octanol-water partition coefficient;LC₅₀- Lethal Concentration 50%;LD₅₀- Lethal Dose 50%;

NIOSH - National Institute for Occupational Safety and Health;

NOEC - No Observed Effect Concentration;

OSHA - Occupational Safety & Health Administration;

PEL - Permissible Exposure Limit;

REL - Recommended Exposure Limit;

STEL - Short Term Exposure Limit;

TLV - Threshold Limit Value;

TWA - Time Weighted Average;

UN - United Nations.

Bibliographic references:

ACGIH - AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIALS HYGIENISTS. TLVs® and BEIs®: Based on the Documentation of the Threshold Limit Values (TLVs®) for Chemical Substances and Physical Agents & Biological Exposure Indices (BEIs®). Cincinnati-USA, 2024.

GHS - GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS. 10th rev. ed. New York and Geneva: United Nations, 2023.