

# Material Safety Data Sheet

## Renner Protective Coatings



### 1 - PRODUCT AND COMPANY IDENTIFICATION

Product: **HARDENER FOR UNYMARINE FINISH/COMPONENT B TO RETHANE DHG/FBR 645/DBR/SBD 874**  
RECOMMENDED USE: Curing agent.

Code: 8520500

Manufacturer's name: RENNER HERRMANN S.A.  
Av. Juscelino K. de Oliveira, 12453 - CIC  
81170-300 - Curitiba - Paraná - Brazil  
Phone: (+ 55) (41) 3341.3400  
Emergency Phone Number: CSR - Renner Solutions Center: (+5541) 3341 3400  
www.rennercoatings.com

### 2 - HAZARD IDENTIFICATION

Chemical product classification:  
Flammable liquid - category 3  
Skin Sensitization - Category 1  
Specific target organ toxicity (single exposure) - Category 3  
Acute inhalation toxicity - Category 4  
Product classified according to ABNT 14725-2.



WORD OF CAUTION: Danger

#### DANGEROUS PHRASES:

H332 - Harmful if inhaled  
H312 - Harmful in contact with the skin - Hazard category 1B  
H302 - Harmful if ingested.  
H373 - May cause damage to organs through prolonged or repeated exposure  
H319 - Causes serious eye irritation  
H335 - Irritating to respiratory system  
H400 - Very toxic to aquatic life.  
H300 - Fatal if swallowed.  
H351 - Suspected of causing cancer.  
H226 - Flammable liquids and vapors.

#### PRECAUTIONARY PHRASES:

P262 - Do not get in eyes, on skin, or on clothing.  
P280 - Wear eye and face protection.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P501 - This material and its container must be disposed of in a safe way.  
P273 - Do not empty into drains.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P260 - Do not breathe vapours.  
P270 - When using do not eat or drink.  
P210 - Keep away from sources of ignition. No smoking.  
P210 - Keep away from heat.  
P270 - Keep away from food, drink and animal feedingstuffs.  
P102 - Keep out of the reach of children.

#### EFFECTS OF OVEREXPOSURE:

**INGESTION:**  
Toxicity of a single oral dose is considered low. The accidental ingestion of small quantities related to the handling of the product is not expected to cause any harm.

**EYES:**  
It may cause light irritation to eyes. Temporary minor cornea damage.

**SKIN:**  
Dryness, lesion, irritation, and contact dermatitis.

**INHALATION:**  
Irritation of respiratory system, besides headache, dizziness and nausea. Inhalation of high concentration may lead to loss of coordination and weakening. Continuous exposure to sanding dust may also lead to respiratory and skin problems.

### 3 - COMPOSITION / INFORMATION ON INGREDIENTS

PRODUCT TYPE: Mix  
CHEMICAL NATURE: Component for paints

Hazardous ingredients:

Chemical Name	CAS Number	Concentration Range (%)
Mixed xylene	1330-20-7	10,0 – 20,0

**CLASSIFICATION SYSTEM:**

The ingredients were classified according to Guideline 67/548/EEC.

#### 4 - FIRST AID MEASURES

**INHALATION:**

If inhaled, move to fresh air. Aid in breathing (mouth-to-mouth respiration), if necessary, and get medical attention.

**SKIN CONTACT:**

Remove contaminated clothing; wash affected skin with flowing water and soap. If the product adheres to skin and it is difficult to remove it with water, use vaseline, mineral oil or vegetal oil. If symptoms persist.

**EYE CONTACT:**

Flush eyes with large amounts of water, for at least 15 minutes, maintaining the eyelids open. Get urgent medical attention.

**INGESTION:**

Do not induce vomiting. If the victim is unconscious, and vomiting occurs involuntarily, turn the victim sideways, and see that he/she rests. Get urgent medical attention. If swallowed large quantity of liquid or solid material, it may be necessary to proceed with gastric washing up. Drink water or milk.

**ACTIONS TO BE AVOIDED:**

Skin contact.

**DESCRIPTION OF MAIN SYMPTOMS AND EFFECTS:**

Throat irritation in case of long-term exposure to vapours.

**PROTECTION OF FIRST AID APPOINTED PERSON:**

In case of accidents of great proportions, the first aid provider shall have full protective equipment available. Remove contaminated clothing.

**INFORMATION FOR PHYSICIANS:**

Gastric wash up is necessary, especially in children, when large quantities ingestion.

**SYMPTOMATIC TREATMENT:**

If possible, contact a Toxicological Center.

#### 5 - FIRE FIGHTING MEASURES

**SUITABLE EXTINGUISHING MEDIA:**

Dry chemical, carbon dioxide or foam. Water spraying may also be used, although not so effective. Besides, water spraying may be used to cool the container.

**UNSUITABLE EXTINGUISHING MEDIA:**

Water jetting.

**SPECIFIC HAZARDS:**

Flammable product. Monoxide and carbon dioxide may be released. These are irritating and poisonous gases. Closed containers may explode when exposed to extreme heat. In case of fire, water spraying may be used to cool the containers. Keep containers closed when not used. Product combustion may result in toxic gases.

**SPECIAL METHODS:**

Cool containers that are close to the fire with water spraying.

**FIREFIGHTER PROTECTION:**

Wear appropriate individual protective equipment and respirator.

#### 6 - ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:**

**REMOVAL OF IGNITION SOURCES:**

Flammable product. Keep away from any ignition sources (flames, sparks, etc), and turn off any equipment or electrical networks that may be in contact with the product.

**DUST CONTROL:**

Unnecessary as the product is liquid.

**INHALATION, CONTACT WITH SKIN, EYES AND MUCOUS PREVENTION:**

Ventilate the area and avoid contact with skin, eyes and mucous.

**ENVIRONMENT PRECAUTIONS:**

If large quantity leaks, remove liquid using inert absorbing material, such as sand, vermiculite, etc. Avoid that the product gets in contact with soil, rivers and lakes.

**ALARM SYSTEM:**

If waters are contaminated, inform governmental local authorities.

**METHOD FOR CONTAINMENT AND CLEANING:**

**DISPOSAL:**

Consult a local expert for advice on the disposal of this material. Ensure that disposal is in compliance with local, national.

**PREVENTION FOR SECONDARY HAZARDS:**

Containers shall not be reused. They must be disposed of or recycled according to local legislations.

#### 7 - HANDLING AND STORAGE

**HANDLING:****TECHNICAL MEASURES:****PERSONAL PROTECTION:**

Handle the product only in well-ventilated area, and wear proper personal equipment (see item 8). Do not throw nor let the product container to drop. The container must be kept closed when not in use. After using the product, and before ingesting any type of food, smoking or using toilet, wash hands properly.

**FIRE AND EXPLOSION PREVENTION:**

The product contains volatile organic solvents and fuel. Keep containers well closed, protected from heat sources, and distant from any ignition sources.

**PRECAUTIONS FOR SAFE HANDLING:**

Wear proper personal equipment.

**RECOMMENDATION FOR SAFE HANDLING:**

Avoid contact with skin, mucous and eyes.  
Handle the product only in well-ventilated areas.  
Do not reuse container.  
Do not smoke, eat or drink in the handling area.

**STORAGE:****TECHNICAL MEASURES:**

Keep containers well closed, protected from intense heat. Do not store near food. Keep children away from the product.

**STORAGE CONDITIONS**

Proper: Sheltered, cool, dry and ventilated areas.  
Conditions to avoid: Avoid storing it where there is strainer or any other form of drainage nearby as it may infiltrate into wastewater drainage and / or sewers.

**INCOMPATIBLE PRODUCTS AND MATERIALS:**

Do not store it near corrosive and/or toxic products, organic peroxides, materials of spontaneous combustion and radioactive materials.

**SAFE MATERIALS FOR PACKAGING:**

Adequate: Metal containers.  
Inadequate: Plastic containers

**8 - EXPOSURE CONTROL / PERSONAL PROTECTION****SPECIFIC CONTROLS:**

Exposure limits:

Chemical Name	TLV/TWA (mg/m3)	TLV/STEL (ppm)	NR 15 (ppm)
Mixed xylene	100	150	78

**ENGINEERING CONTROLS:**

Provide sufficient ventilation, keeping doors and windows opened for air circulation. Closed environments shall be provided with air exhaustion devices. If it is impossible to provide natural or equipment ventilation, wear respirator with filter for organic vapors.

**PERSONAL PROTECTIVE EQUIPMENT:****EYE PROTECTION:**

Safety glasses or chemical goggles.

**SKIN AND BODY PROTECTION:**

Wear body protection to avoid contact with product.

**RESPIRATORY PROTECTION:**

Wear respirator with filter for organic vapors, with forced ventilation.

**PROTECTION FOR HANDS:**

Rubber gloves.

THERMAL HAZARDS: Not available

**MONITORING RECOMMENDED PROCEDURES:**

Labor Ministry regulation standard nº 15, Fundacentro working neatness standards, procedures NIOSH or ACGIH.

**9 - PHYSICAL - CHEMICAL PROPERTIES****Product:**

Appearance: Fluid

Color: NA

Odor: Characteristic

pH: Not Available.

Specific weight: 1,0040 – 1,1040

Mass solids (% mass): 74,5 – 78,5

Solubility Water: insoluble.

Specific temperatures or ranges in which physical changes occur:

Boiling point: 143°C (Xylene)

Flash point: According Technical Bulletin

Explosion limits (% volume): Lower Limits: 1,0 Vol. % (Xylene)

Upper Limits: 7,0 Vol. % (Xylene)

Vapor pressure (mmHg at 20°C): 6,6 (Xylene)

Vapor density (air = 1): 3,66 (Xylene)

Evaporation rate (butylacetate=1): 0,6 (Xylene)

## 10 - STABILITY AND REACTIVITY

### CHEMICAL STABILITY / REACTIVITY:

Stable under normal conditions of storage and use.  
See instructions on sections 5 and 7 on fire hazards.

### POSSIBILITY OF HAZARDOUS REACTIONS:

There won't be any dangerous reactions if product is stored, applied and processed correctly.

### CONDITIONS TO AVOID:

Avoid high temperatures and contact with oxidizing vehicles, heat and ignition sources.

### INCOMPATIBLE MATERIALS OR SUBSTANCES:

Oxidizing materials.

### HAZARDOUS DECOMPOSITION PRODUCTS:

Combustion releases toxic gases such as CO, CO2 and NOx.

## 11 - TOXICOLOGICAL INFORMATION

### TOXICITY

Chemical Name	DL50	CL50	Carcinogenicity	Teratogenicity	Mutagenicity	Toxic Doses
Mixed xylene	Ingestion: 3500 mg/kg	NA	NA	NA	NA	-

### SKIN IRRITATION

Acute: Moderate irritation.

Chronic: Contact for long period may cause dermatitis and skin dryness.

### EYE IRRITATION

Acute: Accidents with splatters may result in serious eye irritation especially for the presence of xylene. Acute exposure to large quantities of sanding dust may irritate eye mucosa.

Chronic: There are not any available reports on the toxicity caused by the product.

### INHALATION

Acute: Headache, nausea, dizziness, sleepiness and, if exposed to high concentrations, pneumonitis.

Chronic: Neuropsychiatric alterations reported for xylene. Xylene is also suspected of causing lesion to the auditive nerve.

### INGESTION

Acute: Nausea, vomit, diarrhea. Risk of pneumonitis resulting from the ingestion of vomit.

Chronic: Hepatic damages related to ingestion of xylene.

### ASPIRATION HAZARD:

Acute: When exposed to aromatic hydrocarbon for long periods, it may cause nausea, irritation of superior respiratory system, headache, vomit, dizziness, sleepiness and dermatitis.

Chronic: Possible neurological, renal, hearing damages when exposed for long periods, and lungs damages (cough, dyspnea, worse respiratory function) for inhaling the product vapors.

## 12 - ECOLOGICAL INFORMATION

ECOTOXICIDAD: Harmful to fauna and flora.

PERSISTENCE AND DEGRADABILITY: Product not degradable.

BIOACCUMULATION POTENTIAL: Not potentially Bioaccumulative.

MOBILITY IN SOIL: All actions shall be taken to work according to local environmental regulations.

ENVIRONMENT EFFECTS: Water insoluble. It may have toxic effects on water life. I may affect soil, by percolation, degrading the quality of the freatic level waters.

## 13 - TREATMENT AND DISPOSAL CONSIDERATIONS

### RECOMMENDED PRACTICES FOR FINAL DESTINATION

PRODUCT: Co-processing, thermal decomposition or industrial earthwork, according to local regulations. Do not dispose of the material in sewerage systems, rivers, lakes and springs.

WASTE MATERIAL: the residue that will not be used anymore shall be disposed of according to local regulations.

USED CONTAINER: it shall not be used again.

## 14 - TRANSPORT INFORMATION

National and International Recommendation:

### LAND:

UN Number: 1263

Hazard class: 3.0

Hazard number: 30

Packaging group: III

Proper shipping name: PAINT

WATERWAYS:  
IMDG/GGVSEA/UN Number: 1263  
Hazard class: 3.0  
Hazard number: 30  
Packaging group: III  
Proper shipping name: PAINT

AIR TRANSPORT:  
UN Number: 1263  
Hazard class: 3.0  
Hazard number: 30  
Packaging group: III  
Proper shipping name: PAINT

## 15 - REGULATORY INFORMATION

Decree 2657, of 03/07/98, concerning Safety in the Use of Chemicals at Work.  
Labor Ministry act n° 3214 and its regulatory law n° 15 - amendments 11 and 12 (tolerance limits).  
Regulatory law n° 7 - Program of Medical Biological Occupational Health (biological indicators).  
Act n° 420, dated February 12,2004 - National Agency for Road Transportation.  
IMDG (International Maritime Dangerous Goods) Code, 1998 (classification of hazardous products for sea transportation).  
IATA (International Aerial Transport Association - 41 ed. (classification of hazardous products for air transportation).  
Regulatory law n° 26 - Labor Ministry.  
Law n° 8078, dated September 11, 1990. (Consumer Guarantees Act).

## 16 - OTHER INFORMATION

Bibliographic references:

ABNT NBR 14725-4  
ABNT NBR 14725-2  
ABNT NBR 14725-3  
NR-26

Abbreviations:  
CAS: Chemical Abstracts Service  
LC50 - Lethal concentration with 50% mortality  
LD50 - Lethal dose with 50% mortality  
LCLo - Lowest lethal concentration.  
LDLo - Lowest letal dose  
NA: Not applicable  
NA: Not available

DEFINITIONS:  
TERATOGENIC PRODUCT: In the case of chronic exposure may cause fetal abnormalities or threatened abortions.  
MUTAGENIC PRODUCT: In the case of chronic exposure, can cause DNA changes.  
PRODUCT CARCINOGENIC: In case of chronic exposure can be carcinogenic.

Note: the information contained herein is based on present experience and knowledge. We accept no responsibility if the information herein are not sufficient nor correct under all circumstances. Customers and users of this product shall consider these data as additional information on the ones they already have, to assure the product correct use and correct disposal of the material; safety and health of employees and customers, and environmental protection. The present MSDS refers exclusively to the described product, and it is not extensive to any other material or process. It is subject to change due to our policy of modification and product development.