

HARDENER ST 5581

Safety Data Sheet

According to ABNT NBR 14725: 2023

Issue date: 10/16/2024 Revision date: 4/24/2025 Version: 3.0



SECTION 1: Identification

1.1. GHS Product identifier

Product form : Substance
Trade name : HARDENER ST 5581
Product code : 16209591
Type of product : Catalyst
Product group : Trade product

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Uses in coatings - Curing agent for component A.

1.4. Supplier's details

WEG TINTAS LTDA - GRUPO WEG

Guaramirim - Santa Catarina / Brasil

Rodovia BR 280 – Km 50, 6.918 – Bloco A. Caixa D'Água – 89270-000 - +55 (47) 3276-4000

Mauá - São Paulo / Brasil

Rua Dr. Ulysses Guimarães, nº 918 – Bloco A. Loteamento Industrial Coral 09372-050 – Fone: +55 (11) 4547-6100

Cabo de Santo Agostinho - Pernambuco / Brasil

Via VII, 314 Distrito Industrial DIPER – 54590-000 - Fone: +55 (81) 3512-3000

Betim - Minas Gerais / Brasil

Avenida Juiz Marco Tulio Isaac, 2994 Betim Industrial – 32671-198, Fone: +55 (31) 3268-0687 / +55 (31) 3268-0686

Macaé - Rio de Janeiro / Brasil

Rua Itacolomi, 528 – Quadra H – Lote 11 Cabiúnas – 27977-340

Atotonilco de Tula - Estado de Hidalgo / México

Av. Hidalgo, lote 40, 41, 42 y 43 - Parque Industrial Bicentenario, CP 42980 - Fone: +52 (55) 5321-4231

Buenos Aires - Provincia de Buenos Aires / Argentina

Av. José Melián, 2983 - Parque Industrial Burzaco, B1852 - Fone: +54 (11) 4299-8000

1.5. Emergency phone number

Emergency number :

24-HOUR EMERGENCY - AMBIPAR		0800 117 2020	
CHEMTREC international number		+1-703-527-3887 e 1-800-424-9300	
Country	City	Local Number	Toll-Free Number
Austria	Vienna	+43-1-3649237	
Austria			0800 293702
China		400 120 4937	
France		+33-975181407	
Germany			0800-181-7059

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HARDENER ST 5581

16209591

Safety Data Sheet

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Revision date: 4/24/2025

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India			000 800 1007 141
Italy	Milan	+39-02 4555 7031	
Italy			800 789 767
Netherlands		+31-85 888 0596	
Russia			8(800)100-63-46
South Africa			080-001-4676
United Kingdom	London	+44 20 3807 3798	
South korea			080-880-0454
Japan			0800-300-5842

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to GHS BR (ABNT NBR 14725: 2023)

Flammable liquids, Category 3
Acute toxicity (dermal), Category 5
Acute toxicity (inhalation:dust,mist) Category 4
Skin corrosion/irritation, Category 2
Serious eye damage/eye irritation, Category 2
Skin sensitisation, Category 1
Specific target organ toxicity — Single exposure, Category 3, Narcosis
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
Specific target organ toxicity — Repeated exposure, Category 2
Hazardous to the aquatic environment - Acute Hazard, Category 2
Hazardous to the aquatic environment - Chronic Hazard, Category 2

2.2. GHS Label elements, including precautionary statements

GHS BR labelling

Hazard pictograms (GHS BR)



Signal word (GHS BR)

: Warning

Hazard statements (GHS BR)

: H226 - Flammable liquid and vapour
H313 - May be harmful in contact with skin
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H373 - May cause damage to organs through prolonged or repeated exposure.
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS BR)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
P233 - Keep container tightly closed.
P240 - Ground and bond container and receiving equipment.
P241 - Use explosion-proof equipment.
P242 - Use non-sparking tools.
P243 - Take action to prevent static discharges.
P260 - Do not breathe dust, fume, gas, mist, vapours or spray.
P264 - Wash hands, forearms and face thoroughly after handling.

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HARDENER ST 5581

16209591

Safety Data Sheet

According to ABNT NBR 14725: 2023

Revision date: 4/24/2025

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.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with 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.
P312 - Call a POISON CENTER or a doctor if you feel unwell.
P314 - Get medical advice or attention as appropriate.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.
P337+P313 - If eye irritation persists: Get medical advice or attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use appropriate media to extinguish.
P391 - Collect spillage.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and international regulations.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : CATALISADOR END ST 5581 COMP B

Name	GHS Product identifier	%	Classification according to GHS BR (ABNT NBR 14725: 2023)
MIXED XYLENES	CAS-No.: 1330-20-7	20 – 40	Flam. Liq. 3, H226 Acute Tox. 5 (Oral), H303 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
n-butyl acetate	CAS-No.: 123-86-4	20 – 40	Flam. Liq. 3, H226 STOT SE 3, H336 Aquatic Acute 3, H402
ALIPHATIC POLYISOCYANATE	CAS-No.: 28182-81-2	20 – 40	Acute Tox. 4 (Inhalation), H332 Skin Sens. 1, H317 STOT SE 3, H335

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HARDENER ST 5581

16209591

Safety Data Sheet

According to ABNT NBR 14725: 2023

Revision date: 4/24/2025

Name	GHS Product identifier	%	Classification according to GHS BR (ABNT NBR 14725: 2023)
POLYISOCYANATE AROMATIC	CAS-No.: 53317-61-6	10 – 20	Eye Irrit. 2, H319 Skin Sens. 1, H317
ETHYL ACETATE	CAS-No.: 141-78-6	1 – 5	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
2-methoxy-1-methylethyl acetate	CAS-No.: 108-65-6	1 – 5	Flam. Liq. 3, H226 Acute Tox. 5 (Dermal), H313
ABSORBING MOISTURE ADDITIVE	CAS-No.: 4083-64-1	0.1 – 0.25	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Resp. Sens. 1, H334 STOT SE 3, H335
1,3-DIISOCYANATOMETHYLBENZENE	CAS-No.: 26471-62-5	< 0.1	Acute Tox. 2 (Inhalation), H330 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 Aquatic Chronic 3, H412
HEXAMETHYLENE DIISOCYANATE	CAS-No.: 822-06-0	< 0.1	Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335
dibutyltin dilaurate; dibutyl[bis(dodecanoyloxy)] stannane	CAS-No.: 77-58-7	< 0.1	Acute Tox. 5 (Oral), H303 Acute Tox. 5 (Dermal), H313 Muta. 2, H341 Repr. 1B, H360 STOT RE 1, H372 Aquatic Acute 1, H400

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: People with over sensibility problems are not allowed to work or be exposed to the product.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. Give oxygen or artificial respiration if necessary.
First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Be careful, the product may remain trapped under clothing, footwear or a wrist-watch. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: In case of contact with eyes, rinse immediately with plenty of water and seek medical

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HARDENER ST 5581

16209591

Safety Data Sheet

According to ABNT NBR 14725: 2023

Revision date: 4/24/2025

First-aid measures after ingestion : advice.
: Do NOT induce vomiting. Rinse mouth out with water.

4.2. Most important symptoms and effects, acute and delayed

Symptoms/effects : May cause damage to organs through prolonged or repeated exposure. Harmful if inhaled. May cause severe burns. May cause an allergic skin reaction. May cause respiratory irritation. May cause drowsiness or dizziness.

Symptoms/effects after inhalation : May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing. Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination.

Symptoms/effects after skin contact : May be harmful in contact with skin. Causes skin irritation. irritation (itching, redness, blistering). Cracking of the skin. Prolonged or repeated contact may cause skin to become dry.

Symptoms/effects after eye contact : May cause eye irritation. stinging. Redness.

Symptoms/effects after ingestion : Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

4.3. Indication of any immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Dry chemical, CO2, or water spray or regular foam.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable liquid and vapour. The vapours are denser than air and may travel along the ground. Distance ignition possible. Agitation can cause build up of electrostatic charge. Vapours may cause fire/explosion if source of ignition is present. In case of fire and/or explosion do not breathe fumes.

Explosion hazard : Vapours may form explosive mixture with air. Prolonged exposure to fire may cause containers to rupture/explode.

5.3. Special protective actions for fire-fighters

Precautionary measures fire : Keep container closed when not in use. This product is not to be used under conditions of poor ventilation.

Firefighting instructions : Get the package away from the fire if this can be done without risk. Fight fire from a safe distance or use hoses with support or cannon engine. Cool laterally with water containers exposed to flames, even after the fire is extinguished. Do not enter fire area without proper protective equipment, including respiratory protection.

Protection during firefighting : Use self-contained breathing apparatus and chemically protective clothing.

Other information : On exposure to high temperature, may decompose, releasing toxic gases.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Eliminate every possible source of ignition. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Avoid contact with skin and eyes. May be harmful to aquatic organisms, to flora, to soil organisms. Clean up any spills as soon as possible, using an absorbent material to collect it. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.

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5/16

HARDENER ST 5581

16209591

Safety Data Sheet

According to ABNT NBR 14725: 2023

Revision date: 4/24/2025

6.1.1. For non-emergency personnel

- | | | |
|----------------------|---|---|
| Protective equipment | : | Wear recommended personal protective equipment. |
| Emergency procedures | : | No flames, no sparks. Eliminate all sources of ignition. Do not touch or walk on the spilled product. Evacuate area. Only qualified personnel equipped with suitable protective equipment may intervene. Notify fire brigade and environmental authorities. |

6.1.2. For emergency responders

- | | | |
|----------------------|---|---|
| Protective equipment | : | Use self-contained breathing apparatus and chemically protective clothing. Gloves. Wear security glasses which protect from splashes. Self-contained breathing apparatus. Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product. Equip cleanup crew with proper protection. |
| Emergency procedures | : | Keep away from combustible material. All equipment used when handling the product must be grounded. Evacuate unnecessary personnel. Stop leak if safe to do so. |

6.2. Environmental precautions

Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Toxic to aquatic life with long lasting effects. Do not allow product to spread into the environment. Toxic to aquatic life. Notify authorities if product enters sewers or public waters.

6.3. Methods and materials for containment and cleaning up

- | | | |
|-------------------------|---|--|
| For containment | : | Prevent dispersion by moistening spill with water or foam. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible. |
| Methods for cleaning up | : | Absorb remaining liquid with sand or inert absorbent and remove to safe place. Clean contaminated surfaces with an excess of water. Clear up rapidly by scoop or vacuum. Absorb spillage to prevent material damage. Absorb spilled material with sand or earth. Take up liquid spill into absorbent material. |

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- | | | |
|-----------------------------------|---|--|
| Additional hazards when processed | : | Flammable vapours may accumulate in the container. |
| Precautions for safe handling | : | Provide adequate ventilation to minimize dust and/or vapour concentrations. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Handle carefully. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Contaminated work clothing should not be allowed out of the workplace. Ensure good ventilation of the work station. Keep only in original container. Do not handle until all safety precautions have been read and understood. |
| Hygiene measures | : | Always wash hands after handling the product. Take off immediately all contaminated clothing and wash it before reuse. Remove contaminated clothes. Do not eat, drink or smoke when using this product. |

7.2. Conditions for safe storage, including any incompatibilities

- | | | |
|------------------------|---|---|
| Technical measures | : | Ensure adequate ventilation, especially in confined areas. Store locked up. Store in tightly closed, leak-proof containers. |
| Storage conditions | : | Keep cool. Store in a well-ventilated place. Keep container tightly closed. Keep cool. Protect from sunlight. |
| Incompatible materials | : | combustible materials. |
| Packaging materials | : | Store always product in container of same material as original container. |

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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HARDENER ST 5581

16209591

Safety Data Sheet

According to ABNT NBR 14725: 2023

Revision date: 4/24/2025

MIXED XYLENES 1330-20-7

USA - ACGIH - Occupational Exposure Limits

Local name	Xylene, mixed isomers (Dimethylbenzene)
ACGIH® TLV® TWA	20 ppm
Remark (ACGIH)	TLV® Basis: URT & eye irr; hematologic eff; ototoxicity (for mixtures containing p-xylene); CNS impair. Notations: OTO (for mixtures containing p-xylene); A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH 2024

USA - OSHA - Occupational Exposure Limits

Local name	Xylenes (o-, m-, p-isomers)
OSHA PEL TWA	435 mg/m³ 100 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

n-butyl acetate 123-86-4

USA - ACGIH - Occupational Exposure Limits

Local name	n-Butyl acetate
ACGIH® TLV® TWA	50 ppm
ACGIH® TLV® STEL	150 ppm
Remark (ACGIH)	TLV® Basis: Eye & URT irr
Regulatory reference	ACGIH 2024

USA - OSHA - Occupational Exposure Limits

Local name	n-Butyl-acetate
OSHA PEL TWA	710 mg/m³ 150 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

ETHYL ACETATE 141-78-6

USA - ACGIH - Occupational Exposure Limits

Local name	Ethyl acetate
ACGIH® TLV® TWA	400 ppm
Remark (ACGIH)	TLV® Basis: URT & eye irr
Regulatory reference	ACGIH 2024

USA - OSHA - Occupational Exposure Limits

Local name	Ethyl acetate
OSHA PEL TWA	1400 mg/m³ 400 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

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HARDENER ST 5581

16209591

Safety Data Sheet

According to ABNT NBR 14725: 2023

Revision date: 4/24/2025

8.3. Individual protection measures

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves made of PVC. Nitrile rubber gloves

Eye protection:

Wear closed safety glasses

Skin and body protection:

Chemical resistant safety shoes. Long sleeved protective clothing. Or chemical resistant apron

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: Colourless
Odour	: characteristic
Odour threshold	: Not available
pH	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flash point	: 31 °C
Relative evaporation rate (butylacetate=1)	: Not available
Flammability	: Not available
Explosive limits	: Not available
Vapour pressure	: Not available
Relative vapour density at 20°C	: Not available
Relative density	: Not available
Density	: 0.95 – 1.05 g/cm³
Solubility	: Water: Material insoluble in water
Partition coefficient n-octanol/water (Log Kow)	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
Viscosity, kinematic	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable

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16209591

Safety Data Sheet

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Revision date: 4/24/2025

Particle aspect ratio : Not applicable
Particle specific surface area : Not applicable

ALIPHATIC POLYISOCYANATE28182-81-2

Flash point	170 °C
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MIXED XYLENES1330-20-7

Boiling point	139.6 °C
Flash point	30 °C (ASTM D 93)
Auto-ignition temperature	488 °C
Vapour pressure	4.8 kPa 55°C

2-methoxy-1-methylethyl acetate108-65-6

Boiling point	145.8 °C Atm. press.: 760 mm Hg Decomposition: 'no'
Flash point	45.5 °C Atm. press.: 101,3 kPa
Auto-ignition temperature	315 °C Source: International Uniform Chemical Information Database
Vapour pressure	3.75 mm Hg Source: National Institute of Technology and Evaluation

n-butyl acetate123-86-4

Boiling point	126.2 °C Atm. press.: 1013 hPa
Flash point	27 °C Atm. press.: 1013 hPa

dibutyltin dilaurate; dibutyl[bis(dodecanoyloxy)] stannane77-58-7

Boiling point	205 °C Atm. press.: 1,3 kPa
Flash point	189 – 193 °C Atm. press.: 101,325 kPa
Vapour pressure	0.0000077 Pa Temp.: 25 °C

ABSORBING MOISTURE ADDITIVE4083-64-1

Flash point	150 °C
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9.2. Data relevant with regard to physical hazard classes

No additional information available

9.3. Further safety characteristics

No additional information available

SECTION 10: Stability and reactivity

Chemical stability	: In use may form flammable/explosive vapour-air mixture.
Conditions to avoid	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid contact with hot surfaces. High temperature. Avoid formation of vapours.
Hazardous decomposition products	: May liberate toxic gases.
Incompatible materials	: Combustible materials.
Possibility of hazardous reactions	: Liquids/vapours may ignite or react with other materials.
Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Handling temperature	: No additional information available

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HARDENER ST 5581

16209591

Safety Data Sheet

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Revision date: 4/24/2025

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not available
Acute toxicity (dermal) : May be harmful in contact with skin.
Acute toxicity (inhalation) : Inhalation:dust,mist: Harmful if inhaled.

ALIPHATIC POLYISOCYANATE (28182-81-2)

LD50 oral rat	2000 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight
LC50 Inhalation - Rat	390 mg/m ³

MIXED XYLENES (1330-20-7)

LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male
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2-methoxy-1-methylethyl acetate (108-65-6)

LD50 oral rat	8532 mg/kg Source: International Uniform Chemical Information Database
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	> 5000 mg/kg Source: International Uniform Chemical Information Database

dibutyltin dilaurate; dibutyl[bis(dodecanoyloxy)] stannane (77-58-7)

LD50 oral rat	2071 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1207 - 5106
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))

Skin corrosion/irritation : Causes skin irritation.

MIXED XYLENES (1330-20-7)

pH	7
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n-butyl acetate (123-86-4)

pH	6.2 Temp.: 20 °C Concentration: 5,3 g/L
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Serious eye damage/irritation : Causes serious eye irritation.

MIXED XYLENES (1330-20-7)

pH	7
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n-butyl acetate (123-86-4)

pH	6.2 Temp.: 20 °C Concentration: 5,3 g/L
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Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not available

Carcinogenicity : Not available

MIXED XYLENES (1330-20-7)

IARC group	3 - Not classifiable
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1,3-DIISOCYANATOMETHYLBENZENE (26471-62-5)

IARC group	2B - Possibly carcinogenic to humans
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dibutyltin dilaurate; dibutyl[bis(dodecanoyloxy)] stannane (77-58-7)

NOAEL (animal/male, F0/P)	1.9 – 2.3 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline
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16209591

Safety Data Sheet

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Revision date: 4/24/2025

dibutyltin dilaurate; dibutyl[bis(dodecanoyloxy)] stannane (77-58-7)

	421 (Reproduction / Developmental Toxicity Screening Test)
NOAEL (animal/female, F0/P)	1.7 – 2.4 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

Reproductive toxicity : Not available
STOT-single exposure : May cause drowsiness or dizziness. May cause respiratory irritation.

ALIPHATIC POLYISOCYANATE (28182-81-2)

STOT-single exposure	May cause respiratory irritation.
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MIXED XYLENES (1330-20-7)

STOT-single exposure	May cause respiratory irritation.
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HEXAMETHYLENE DIISOCYANATE (822-06-0)

STOT-single exposure	May cause respiratory irritation.
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n-butyl acetate (123-86-4)

STOT-single exposure	May cause drowsiness or dizziness.
----------------------	------------------------------------

ABSORBING MOISTURE ADDITIVE (4083-64-1)

STOT-single exposure	May cause respiratory irritation.
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ETHYL ACETATE (141-78-6)

STOT-single exposure	May cause drowsiness or dizziness.
----------------------	------------------------------------

1,3-DIISOCYANATOMETHYLBENZENE (26471-62-5)

STOT-single exposure	May cause respiratory irritation.
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STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

MIXED XYLENES (1330-20-7)

LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

2-methoxy-1-methylethyl acetate (108-65-6)

NOAEL (dermal, rat/rabbit, 90 days)	> 1000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
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n-butyl acetate (123-86-4)

LOAEL (oral, rat, 90 days)	500 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 798.2650 (90-Day Oral Toxicity in Rodents)
NOAEL (oral, rat, 90 days)	125 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 798.2650 (90-Day Oral Toxicity in Rodents)

dibutyltin dilaurate; dibutyl[bis(dodecanoyloxy)] stannane (77-58-7)

STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
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Aspiration hazard : Not available

MIXED XYLENES (1330-20-7)

Viscosity, kinematic	≈ 0.76 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'
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HARDENER ST 5581

16209591

Safety Data Sheet

According to ABNT NBR 14725: 2023

Revision date: 4/24/2025

2-methoxy-1-methylethyl acetate (108-65-6)

Viscosity, kinematic	1.182 mm ² /s
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n-butyl acetate (123-86-4)

Viscosity, kinematic	0.83 mm ² /s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm ² /s)'
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dibutyltin dilaurate; dibutyl[bis(dodecanoyloxy)] stannane (77-58-7)

Viscosity, kinematic	68.571 mm ² /s
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11.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects	: May cause damage to organs through prolonged or repeated exposure. Harmful if inhaled. May cause severe burns. May cause an allergic skin reaction. May cause respiratory irritation. May cause drowsiness or dizziness.
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing. Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination.
Symptoms/effects after skin contact	: May be harmful in contact with skin. Causes skin irritation. irritation (itching, redness, blistering). Cracking of the skin. Prolonged or repeated contact may cause skin to become dry.
Symptoms/effects after eye contact	: May cause eye irritation. stinging. Redness.
Symptoms/effects after ingestion	: Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	: Toxic to aquatic life with long lasting effects.

ALIPHATIC POLYISOCYANATE28182-81-2

LC50 - Fish [1]	100 mg/l
EC50 - Crustacea [1]	127 mg/l
EC50 72h - Algae [1]	1000 mg/l
NOEC chronic algae	370 mg/l

MIXED XYLENES1330-20-7

LC50 - Fish [1]	≈ 2.6 mg/l
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia
ErC50 algae	≈ 2.2 mg/l
LOEC (chronic)	3.16 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'

2-methoxy-1-methylethyl acetate108-65-6

LC50 - Fish [1]	> 100 mg/l Test organisms (species): Oryzias latipes
EC50 - Crustacea [1]	> 500 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

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HARDENER ST 5581

16209591

Safety Data Sheet

According to ABNT NBR 14725: 2023

Revision date: 4/24/2025

2-methoxy-1-methylethyl acetate108-65-6	
NOEC (chronic)	≥ 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	47.5 mg/l Test organisms (species): Oryzias latipes Duration: '14 d'
n-butyl acetate123-86-4	
LC50 - Fish [1]	18 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	44 mg/l Test organisms (species): Daphnia sp.
EC50 72h - Algae [1]	397 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	246 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
LOEC (chronic)	47.6 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	23.2 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
dibutyltin dilaurate; dibutyl[bis(dodecanoyloxy)] stannane77-58-7	
LC50 - Fish [1]	21.2 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	1.7 – 3.4 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	463 µg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	1 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2. Persistence and degradability

HARDENER ST 5581	
Persistence and degradability	Not rapidly degradable
ALIPHATIC POLYISOCYANATE28182-81-2	
Persistence and degradability	Not rapidly degradable
MIXED XYLENES1330-20-7	
Persistence and degradability	Not rapidly degradable
2-methoxy-1-methylethyl acetate108-65-6	
Persistence and degradability	Not rapidly degradable
HEXAMETHYLENE DIISOCYANATE822-06-0	
Persistence and degradability	Not rapidly degradable
n-butyl acetate123-86-4	
Persistence and degradability	Not rapidly degradable
dibutyltin dilaurate; dibutyl[bis(dodecanoyloxy)] stannane77-58-7	
Persistence and degradability	Not rapidly degradable
ABSORBING MOISTURE ADDITIVE4083-64-1	
Persistence and degradability	Not rapidly degradable
POLYISOCYANATE AROMATIC53317-61-6	
Persistence and degradability	Not rapidly degradable

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HARDENER ST 5581

16209591

Safety Data Sheet

According to ABNT NBR 14725: 2023

Revision date: 4/24/2025

ETHYL ACETATE141-78-6

Persistence and degradability	Not rapidly degradable
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1,3-DIISOCYANATOMETHYLBENZENE26471-62-5

Persistence and degradability	Not rapidly degradable
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12.3. Bioaccumulative potential

2-methoxy-1-methylethyl acetate108-65-6

Partition coefficient n-octanol/water (Log Pow)	0.43 Source: International Uniform Chemical Information Database
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Hazardous to the ozone layer : Not available

SECTION 13: Disposal considerations

Regional waste regulation	: Law No. 12.305 on the National Policy on Solid Waste Management, 02 August 2010.
Waste treatment methods	: Must follow special treatment according to local regulation.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Flammable vapours may accumulate in the container. Do not re-use empty containers.

SECTION 14: Transport information

14.1 National and international Regulations

In accordance with IMDG / IATA / ANTT

ANTT	IMDG	IATA
UN number		
1263	1263	1263
UN Proper Shipping Name		
TINTA	PAINT	Paint
Transport document description		
Not applicable	UN 1263 PAINT, 3, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS (31°C c.c.)	UN 1263 Paint, 3, III, ENVIRONMENTALLY HAZARDOUS
Transport hazard class(es)		
3	3	3
Danger labels		
3	3	3
		

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HARDENER ST 5581

16209591

Safety Data Sheet

According to ABNT NBR 14725: 2023

Revision date: 4/24/2025

Subsidiary risk		
Not applicable	Not applicable	Not applicable
Risk Number		
30	Not applicable	Not applicable
Packing group		
III	III	III
Special provisions		
163,223,367	163,223,367,955	A3,A72,A192
Dangerous for the environment		
Yes	Yes	Yes

14.2 Other informations

No additional information available

SECTION 15: Regulatory information

15.1. National regulations

Brazil Local Regulations

: Standard ABNT NBR 14725.
Federal Decree no. 10.088, of 5 November 2019 – Promulgates Convention no. 170 of the WLO, relating to Safety in the Use of Chemicals in the Workplace, ratified by the Federative Republic of Brazil.
Ministerial Order no. 2.770, of 5 September 2022 – Approves the new wording of Regulatory Standard No. 26
Federal Decree no. 96.044, of 18 May 1988 - Approves Regulations for Road Transportation of Hazardous Materials
Resolution no. 5998, of November 3, 2022, updates the regulation for road transport of dangerous goods, approves its Complementary Instructions, and other measures.

SECTION 16: Other information

Abbreviations and acronyms

: CAS-No. - Chemical Abstract Service number
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF - Bioconcentration factor
EC50 - Median effective concentration
LC50 - Median lethal concentration
VOC - Volatile Organic Compounds
LD50 - Median lethal dose
DMEL - Derived Minimal Effect level
DNEL - Derived-No Effect Level
COD - Chemical oxygen demand (COD)
ATE - Acute Toxicity Estimate
IMDG - International Maritime Dangerous Goods
IATA - International Air Transport Association
EC-No. - European Community number
vPvB - Very Persistent and Very Bioaccumulative
WGK - Water Hazard Class
IOELV - Indicative Occupational Exposure Limit Value
BLV - Biological limit value

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HARDENER ST 5581

16209591

Safety Data Sheet

According to ABNT NBR 14725: 2023

Revision date: 4/24/2025

TRGS - Technical Rules for Hazardous Substances

TLM - Median Tolerance Limit

IARC - International Agency for Research on Cancer

Important information, but not specifically described in the previous sections: This MSDS was prepared based on current knowledge about the handling of the product under normal conditions of use, according to the application specified on the packaging and recommended usage in Section 1 of this MSDS. Any other use of the product involving its combination with other materials, as well as forms of use different from those indicated, are the user's responsibility. The company advises that the handling of any chemical substance requires prior knowledge of its hazards by the user. In the workplace it is responsibility of the company user of the product to provide training of its employees and contractors about the possible risks arising from exposure to the chemical. We reserve the right to change the information contained in this document without prior notice, due to the improvement and continuous evolution of the product and technical knowledge.

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