

H5960 HARDENER

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

1.1. Product identifier
H5960 HARDENER

1.2. Relevant identified uses of the substance or mixture and uses advised against
Hardener for PROTECT 360. For professional use in car refinishing.

1.3. Data of the supplier Safety Data Sheet

NOVOL Sp. z o.o.
Ul. Żabikowska 7/9
PL 62-052 Komorniki

Tel: +48 61 810-98-00
Fax: +48 61 810-98-09
www.novol.pl
novol@novol.pl
dokumentacja@novol.pl

Person responsible for the Safety Data Sheet

1.4. Emergency telephone number

+48 61 810-99-09 (from 7.00 to 15.00)

SECTION 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture

The mixture was classified as dangerous pursuant to current regulations - see section 15. Harmful mixture.

Classification 1272/2008/WE:

Irritating effect on skin, category 2 (Skin Irrit.2). Causes skin irritation.

Sensitisation — Skin, category 1 (Skin Sens. 1). May cause an allergic skin reaction.

Serious eye damage/eye irritation, Hazard Category 1 (Eye Dam. 1). Causes serious eye damage.

Liquid, flammable substances, category 3 (Flam. Liq. 3). Flammable liquid and vapour.

2.2. Label elements:

Contains:

Piktogramy:

Xylene, butan-1-ol



Signal word:

Danger.

H226

H315

H318

Flammable liquid and vapour.

Causes skin irritation.

Causes serious eye damage.

P210

P261

P271

P280

P305+P351+P338

P312

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

Avoid breathing vapours/spray.

Use only outdoors or in a well-ventilated area.

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

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a doctor if you feel unwell.

2.3. Other hazards

No available data.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable.

3.2. Mixtures

Product identification

H5960 HARDENER

H5960 HARDENER

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS cont.

Substance name	Identification numbers	Classification and marking	Concentration [wt%]
poliaminoamide	WE: --- CAS: --- Index no: --- Registration no: ---	Eye Dam. 1; H318	40-68
Xylene	EC: 215-535-7 CAS: 1330-20-7 Index no.: 601-022-00-9 Registration no.: 01-2119488216-32-XXXX	Flam. Liq. 3; H226; Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit.2; H315	25-35
Butan-1-ol	WE: 200-751-6 CAS: 71-36-3 Index no: 603-004-00-6 Registration no: 01-2119484630-38-XXXX	Flam. Liq. 3; H226 Acute Tox. 4; H302 STOT SE 3; H335 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H336	5-10

The full text of the hazard statements (H) is provided in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

General information:

See section 11 of the Safety Data Sheet.

Inhalation:

Take the victim outside into fresh air, ensure quiet surrounding; in case of no breath, apply artificial respiration. Call a doctor.

Skin:

Take off contaminated clothing. Rinse contaminated skin with plenty of lukewarm water for about 15 minutes. If irritation persists, consult a doctor.

Eyes:

Rinse immediately with plenty of lukewarm water for about 15 minutes, avoid strong water jet-risk of cornea damage, consult a doctor.

Alimentary tract:

Do not provoke vomiting (choking risk). Rinse mouth with water. If conscious, administer 1-2 glasses of warm water. Call a doctor.

Person giving first aid should wear medical gloves.

4.2. Most important symptoms and effects, both acute and delayed

Vapours may cause drowsiness and dizziness. Repeated exposure may cause skin dryness or cracking.

4.3. Indications of any immediate medical attention and special treatment needed

Special measures allowing for specialist and immediate aid should be available in the place of work.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Powder, foam resistant to alcohols, carbon dioxide, water mist.

5.2. Special hazards arising from the substance or mixture

Fire may cause generation of carbon dioxide and other toxic gases.

5.3. Advice for firefighters

Fire-fighting teams should wear self-contained breathing apparatus and light protective clothing. Cool adjacent tanks by spraying water at a safe distance.

H5960 HARDENER

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

For persons not being the members of aid giving staff:

Eliminate sources of ignition. Ensure sufficient ventilation of the room. Avoid direct contact with the released substance. Avoid contact with skin and eyes. Personal protection measures - section 8 of the Safety Data Sheet.

For persons giving aid:

Persons giving aid should wear protective clothing made of coated, impregnated fabric, protective gloves (viton), tight protective glasses and breathing apparatus: gas mask with A type absorber.

6.2. Environmental precautions

Prevent leakage to the sewage system, surface waters, underground waters and soil.

6.3. Methods and materials for containment and cleaning up

Stop the leakage (close the liquid inflow, seal), place damaged container in an emergency container, remove the liquid mechanically and place it in an emergency container. In case of large leakage, embank the area. In case of small amounts, collect with the use of a binding agent (e.g. mica, diatomaceous earth, sand).

6.4. Reference to other sections

Personal protection measures - see section 8 of the Safety Data Sheet.

Disposal considerations - see section 13 of the Safety Data Sheet.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Keep away from heat and fire sources. Prevent leakage to the sewage system, surface waters, underground waters and soil. Use in well ventilated rooms. Do not smoke. Do not inhale fumes. Avoid contact with skin and eyes. Take precaution measures against electrostatic discharge. Use personal protection measures - section 8 of the Safety Data Sheet.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly sealed, original containers. Do not store near large amounts of organic peroxides and other strong oxidants. Take precaution measures against electrostatic discharge. Store in cool, well ventilated rooms. Protect from low temperatures, the influence of sunrays and heat sources.

7.3. Special end use(s)

Hardener (component B) for epoxy primer PROTECT 365. For professional use in car refinish taking into consideration the information included in subsections 7.1 and 7.2.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

8.1. Control parameters

Butan-1-ol CAS 71-36-3 according to:

- TRGS 900: MAK: 100ppm, MAK: 310 mg/m³, 1(I),DFG, Y
- Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]: STEL 50ppm, 154 mg/m³,Sk

Xylene CAS 1330-20-7 according to:

- TRGS 900: MAK: 100ppm, MAK: 440 mg/m³, 2(II),DFG, H
- Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]: TWA 50 mg/m³, 220mg/m³, STEL 100ppm, 441 mg/m³, Sk, BMGV

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

8.1. Control parameters

Respiratory tract protection:

Gas mask with A type absorber (EN 141).

Hand protection:

Protective gloves PN-EN 374-3 (viton, 0.7 mm thick, penetration time > 480 min, nitrile rubber, 0,4 mm thick, penetration time > 30 min)

Eye protection:

Tight protective glasses.

H5960 HARDENER

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

8.1. Control parameters

Skin protection:

Proper protective clothing (coated impregnated fabrics).

Workplace:

Fixed fume extraction and general ventilation.

Environmental exposure control:

Prevent leakage to the sewage system, surface waters, underground waters and soil.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	light yellow
Odour	characteristic
Odour threshold	0.9 ÷ 9 mg/m ³ (Xylene)
pH	10 (1000g/l w 20°C for poliaminoamide in w xylene and butan-1-ol)
Melting/freezing point	not applicable
Boiling point	117-143°C
Flash point	25°C
Autoignition point	Approx. 340°C
Breakdown point	not specified
Evaporation rate	not specified
Flammability (solid, gas)	not applicable
Explosion limits	% bottom: 1.1 vol% top: 8.0 vol% (xylene)
Vapour pressure	9 hPa (20°C)(xylene)
Vapour density (with regard to air)	3.66 (butyl acetate)
Density	about 0.9 g/cm ³ (20°C)
Solubility (in water)	poor
N-octanol/water division ratio	3.12 ÷ 3,2 (xylene)
Viscosity	10 ÷ 15 mPas
Explosive properties	not applicable
Oxidizing properties	not applicable

9.2 Other informations

No available data.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

The product is not reactive under normal conditions.

10.2. Chemical stability

The product remains stable under normal conditions.

10.3. Possibility of hazardous reactions

Carbon monoxide and other toxic gases are generated as a result of thermal decomposition.

10.4. Conditions to avoid

Flammable product. Avoid contact with strongly oxidizing agents, peroxides, strong acids and bases. Avoid generation and accumulation of static electricity. Protect from the influence of sunrays and heat sources.

10.5. Incompatible materials

Avoid contact with large amounts of organic peroxides, strong acids and bases as well as other strong oxidants.

10.6. Hazardous decomposition products

Carbon monoxide and other toxic gases are generated as a result of thermal decomposition.

H5960 HARDENER

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

No experimental data available on the preparation. Evaluation was performed based on the data on dangerous ingredients included in the preparation.

a) Acute toxicity

Xylene	LD ₅₀ (rat, ingestion)	4300 mg/kg
	LC ₅₀ (rat, inhalation)	5000 ppm/4h
	LD ₅₀ (rabbit, skin)	1700 mg/kg
Butan-1-ol	LD ₅₀ (rat, ingestion)	790 mg/kg
	LC ₅₀ (rat, inhalation)	800 ppm/4h

b) Skin corrosion/irritation

Causes skin irritation.

c) serious eye damage/irritation

Causes serious eye damage.

d) respiratory or skin sensitisation

No available data confirming the hazard class.

e) germ cell mutagenicity

The mixture has not been classified as mutagenic. No available data confirming the hazard class.

f) carcinogenicity

The mixture has not been classified as cancerogenic. No available data confirming the hazard class.

g) reproductive toxicity

The mixture has not been classified as having any harmful effect on reproduction. No available data confirming the hazard class.

h) STOT-single exposure

No available data confirming the hazard class.

i) STOT- repeated exposure

No available data confirming the hazard class.

j) aspiration hazard

No available data confirming the hazard class.

Exposure methods:

Inhalation: Harmful by inhalation.

Skin: Harmful in contact with skin. Irritating to skin.

Eyes: may cause irritation .Risk of serious damage to eyes.

Harmful if swallowed. If swallowed, the substance may cause irritation of the alimentary tract, nausea, vomiting and diarrhoea.

Poisoning symptoms:

Headache and vertigo, fatigue, decreased muscle power, drowsiness and, in exceptional instances, loss of consciousness.

Fumes might cause drowsiness and vertigo. Vapours may cause drowsiness and dizziness.

SECTION 12: ECOLOGICAL INFORMATION

No experimental data available on the preparation. Evaluation was performed based on the data on dangerous ingredients included in the preparation.

12.1. Toxicity

Xylene	Daphnia magna EC50 (48hours.)	> 7.4 mg/l
	Evaluation indicator of acute toxicity for mammals:	3; for fish: 4.1
	Number in the catalogue of water hazardous substances:	206
	Water hazard class:	2
Butan-1-ol	Evaluation indicator of acute toxicity for mammals:	1; for fish: 2.9
	Number in the catalogue of water hazardous substances:	39
	Water hazard class:	1

12.2. Persistence and degradability

No available data.

12.3. Bioaccumulative potential

No available data.

H5960 HARDENER

SECTION 12: ECOLOGICAL INFORMATION

12.4. Mobility in soil

Product very poorly soluble in water.

12.5. Results of PBT and vPvB assessment

No available data.

12.6. Other adverse effects

No available data.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

The product must be disposed of in compliance with proper local and statutory regulations with regard to waste - see point 15. The product should be disposed with entities which are authorised to conduct activity in the area of collecting, recycling or utilization of waste.

Product remains:

Do not dispose the product into the sewage system. Do not store with communal waste. Remove the remains of the mixture carefully and harden with the use of the proper A component, (waste) primer included in the set. The hardened product is not harmful waste.

CAUTION: harden the remains in small portions and keep them away from flammable products. High amounts of heat are released during chemical reaction!

Contaminated container:

A container containing unhardened remains of the product is harmful waste. Do not store with communal waste. The contaminated container should be disposed with entities which are authorized to collection, recover or disposal.

SECTION 14: TRANSPORT INFORMATION

	ADR/RID	IMO/IMGD	IATA-DGR
14.1. UN number	1866	1866	1866
14.2. UN proper shipping name		RESIN SOLUTION, flammable	
14.3. Transport hazard class(es)	3	3	3
14.4. Packaging group	III	III	III
14.5. Environmental hazards	none	none	none
14.6. Special precautions for user Do not transport together with materials of class 1 (excluding materials of class 1.4S) and some materials of classes 4.1 and 5.2. During transport, avoid direct contact with materials of classes 5.1 and 5.2. Do not use an open flame and do not smoke.			
14.7. Transport in bulk according to Annex II of MARPOL Convention and the IBC Code Not applicable.			

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Regulation 2006/1907/WE

CLP - Regulation 1272/2008/WE

15.2. Chemical safety assessment

Not performed

SECTION 16: OTHER INFORMATION

Relevant hazard statements listed in Sections 2 to 15:

Flam.Liq.3 Liquid, flammable substances, category 3

H226 Flammable liquid and vapour.

STOT SE 3 Specific target organ toxicity– single exposure, category 3

H5960 HARDENER**SECTION 16: OTHER INFORMATION****Relevant hazard statements listed in Sections 2 to 15:**

H335 May cause respiratory irritation.

H336 Might cause drowsiness or or dizziness.

Acute Tox. 4. Acute toxicity, category 4

H302 Harmful if swallowed.

H332 Harmful if inhaled.

H312 Harmful in contact with skin.

Skin Irrit. 2 Caustic/irritating effect on skin, category 2

H315 Causes skin irritation.

Skin Corr. 1B Skin corrosion/irritation, Hazard Category 1B

H314 Causes severe skin burns and eye damage.

Eye Dam. 1 Serious eye damage

H318 Causes serious eye damage.

Explanation of the abbreviations and acronyms used in the Safety Data Sheet**CAS no** – numerical symbol ascribed to a chemical substance by the American organization, Chemical Abstracts Service (CAS).**EC no.** – a number ascribed to a chemical substance in the European List of Notified Chemical Substances (ELINCS) or a number in the European Inventory of Existing Chemical Substances mention in "No-longer polymers" publication (EINECS)**MPC** – maximum permissible concentration of health hazardous substances in the work place**MPIC** – maximum permissible instantaneous concentration**MPCC** - maximum permissible ceiling concentration**PCB** - permissible concentration in biological material**UN number** - four-digit identification number of a substance, preparation or product pursuant to UN model regulations**ADR** – European agreement on international road transport of hazardous materials**IMO** – International Marine Organization**RID** – Regulations for international rail transport of hazardous materials**IMDG-Code** – International marine code for hazardous materials**ICAO /IATA** – Technical Instructions for Safe Air Transport of Hazardous Materials

The information is based on our current knowledge. This document shall not constitute warranty for product characteristics.

Classification was made by calculation method according to the classification rules contained in Regulation 1272/2008/WE.

Other sources of information**ECHA** European Chemicals Agency**TOXNET** Toxicology Data Network**IUCLID** International Uniform Chemical Information Database

Changes: General update

Trainings:

With regard to handling, health and safety while working with hazardous substances and mixtures.

With regard to transport of hazardous goods pursuant to the requirements of ADR regulations.

Issued by: NOVOL Sp. z o.o.

Information available from: Research and Development Laboratory, tel. +48 61 810 99 09.