SECTION 1: SUBSTANCE/MIXTURE IDENTIFICATION AND MANUFACTURER/SUPPLIER IDENTIFICATION

1.1. Product identification

REPAIR BOX	**UFI: F030-P03R-S00P-Y54S**
POLYESTER RESIN	**UFI: YK80-J0YJ-P00U-YC0Y**

1.2. Relevant identified uses of the substance or mixture and uses advised against
For professional use in car refinish.

1.3 Data of the safety data sheet supplier

Przedsiębiorstwo RANAL Sp. z o.o.
Ul. Łódzka 3
42-240 Rudniki k. Częstochowy, PL

Tel.: +48 34 329 45 03
Fax: +48 34 320 12 16
Registration number 000029202

Person responsible for the safety data sheet: ranal@ranal.pl

1.4. Emergency telephone
+48 34 329 45 03 (8.00 - 15.00)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
The mixture was classified as hazardous according to the regulations in force - see section 15 of the Safety Data Sheet.

Classification 1272/2008/EC:
Flammable liquids, category 3, H226
Skin corrosion/irritation, category 2, H315
Serious eye damage/eye irritation, category 2 , H319
Reproduction toxicity, category 2, H361d.
Specific target organ toxicity - repeated exposure, category 1, H372
Full text of H- and EUH phrases: see section 16.

2.2. Label elements

Contains: Styrene.

Pictograms:

Signal word: **DANGER.**

Hazard statements (CLP):
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes eye irritation.
H361d Suspected of damaging the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements (CLP):
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260* Do not breathe dust/ vapours.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.

2.3. Other hazards
Vapours of styrene form explosive mixtures with air. Vapours are heavier than air and accumulate near the ground and in the lower parts of rooms. Styrene may polymerize under the influence of high temperature or as a result of contact with strong oxidizing agents, peroxides, strong acids, alkalis, metal salts, copper and its alloys. Styrene polymerization is a highly exothermic process.

Does not contain PBT/vPvB substances ≥ 0.1% assessed in accordance with Annex XIII of REACH.*

The mixture does not contain any substance(s) included in the list established in accordance with Art. 59 sec. 1 of the REACH Regulation due to endocrine disrupting properties or is not identified as endocrine disrupting in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 in a concentration equal to or greater than 0.1% by weight.*

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances
Not applicable.

3.2. Mixtures

Styrene
The substance has an occupational exposure limit(s) (PL) (Note D)*
30-40%
EC: 202-851-5
CAS: 100-42-5
Index no: 601-026-00-0
Registration no: 01-2119457861-32-XXXX
Classification 1272/2008/EC: Flam. Liq. 3, H226; Repr. 2, H361d; Acute Tox. 4, H332; Eye Irrit. 2, H319; Skin Irrit. 2, H315; STOT Rep. 1, H372.

Note D: Certain substances that are prone to spontaneous polymerization or decomposition are generally placed on the market in a stabilized form. This is the form in which they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state the name of the substance on the label, followed by the word 'unstabilised'. *

Full text of hazard statements provided in section 16 of the Sheet.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information: See section 11 of the Material Safety Data Sheet.

Airways: If difficulties in breathing occur, remove the victim to fresh air and keep at rest in a position comfortable for breathing. *

Skin: In case of skin contamination, immediately remove all contaminated clothing and wash contaminated skin with plenty of soap and water. Rinse skin with water/or shower. If skin irritation or rash occurs: Seek medical advice/attention. If skin irritation persists, consult a doctor. *

Eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a doctor. In the case of contact with eyes, immediately rinse with plenty of water and get medical advice. *

Alimentary tract: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a doctor. *

4.2. Most important symptoms both acute and delayed

Symptoms/effects in the event of inhalation: Vapours may cause drowsiness and dizziness.*
Symptoms/effects in the event of skin contact: Prolonged or repeated contact may cause skin dryness.*
Symptoms/effects in the event of contact with eyes: May cause eye irritation.*

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

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media
Suitable extinguishing agents: powder, foam resistant to alcohol, carbon dioxide, water mist.
Unsuitable extinguishing media: do not use a strong stream of water. *

5.2 Special hazards arising from the substance or mixture
Styrene may polymerize under the influence of high temperature or as a result of contact with strong oxidizing agents, peroxides, strong acids, alkalis, metal salts, copper and its alloys.
Styrene polymerization is a highly exothermic process. As a result of a fire, carbon monoxide and other toxic gases are generated.

5.3. Advice for fire fighters
Do not intervene without appropriate protective equipment. Self-contained, breathing apparatus. Compete protective clothing.*

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency measures

For personnel non taking part in emergency procedures:
Eliminate ignition sources. Provide sufficient ventilation of the room. Avoid direct contact with the released substance. Avoid contact with skin and eyes. Personal protection measures – see section 8 of the Sheet.

For personnel taking part in emergency procedures:
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
Avoid release to the environment. Prevent from entering surface water and sewage system. Do not allow the product to enter groundwater, water reservoirs or sewage systems, even in small quantities.*

6.3. Methods and materials for containment and cleaning up
Preventing the spread of contamination: Cover the spilled product with a non-combustible material such as sand, earth, vermiculite. Collect the product mechanically.*

6.4. Reference to other sections
Personal protection measures – see section 8 of the Sheet. Disposal considerations – see section 13 of the Sheet.

SECTION 7: HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES

7.1. Precautions for safe handling
Provide good ventilation of the workplace. Keep away from heat sources, hot surfaces, sources of sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Wear personal protection measures. *

Hygiene recommendations*:
Wash contaminated clothes before using them again. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink and smoke when using the product. Wash hands after each contact with the product. *

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Ground/bond container and receiving equipment.*
Storage conditions: Store in a well-ventilated place. Keep cool. Keep container tightly closed.*

7.3. Special end use (s)
For professional use in car refinish taking into consideration the information included in subsections 7.1 and 7.2 of the Sheet.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION MEASURES

8.1. Control parameters

National values of the highest permissible concentrations in the work environment and biological limit values*:
Styrene (100-42-5)
Poland- The highest permissible concentration at the workplace:
Local name: Styrene
NDS (OEL TWA): 50 mg/m³
NDSCh (OEL STEL): 100 mg/m³
Regulatory reference: Official Journal 2018, item 1286

Monitoring method*:
EN 482. Exposure at workplaces– general requirements for the characteristics of chemical agents measurement procedures.

Air pollutants formation*:
No further data available.

DNEL and PNEC*:
Styrene (100-42-5)

DNEL/DMEL (Workers):	Acute - systemic effects after inhalation	100 mg/m³
	Acute - local effects after inhalation	100 mg/m³
	Long - term systemic effects after inhalation	100 mg/m³
	Long - term local effects after inhalation	100 mg/m³
DNEL/ DMEL (General population)	Acute - systemic effects after inhalation	10 mg/m³
	Acute - local effects after inhalation	10 mg/m³
	Long - term systemic effects after ingestion	7.7 µg/kg body weight/day
	Long - term systemic effects after inhalation	1 mg/m³
	Long - term local effects after inhalation	1 mg/m³
PNEC (Water)	PNEC aqua (fresh water)	0.04 mg/l
	PNEC aqua (sea water)	0.04 mg/l
PNEC (Sediment)	PNEC sediment (fresh water)	0.418 mg/kg dry mass
	PNEC sediment (sea water)	0.418 mg/kg dry mass
PNEC (Soil)	PNEC soil	0.146 mg/kg dry mass

Risk management*:
No further data available.

8.2 Exposure control

Symbols of personal protective equipment*:

Eyes protection:
Safety glasses.*

Skin and body protection*:
Proper protective clothes (coated impregnated fabrics).

Hands protection:
Protective gloves PN-EN 374-3 (viton, thickness 0.7 mm, penetration time >480 min.; nitrile rubber, thickness 0.4 mm, penetration time >30 min.).

Respiratory protection:
In case of insufficient ventilation, wear suitable breathing apparatus*.
Gas mask with A1/ B1 type absorber (EN 14387)*.

Thermal hazards*:
No further data available.

Workplace:
Local extractors and general ventilation.*

Environmental control
Prevent from penetrating into sewage system, surface water, ground water and soil.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties*

Physical state	highly viscous liquid
Colour	according to specification
Odour	sweet to penetrating
Odour threshold	0.43 mg/m^3 (styrene, vinylbenzene*)
Melting point	not applicable*
Freezing point	not available*
Boiling point	146°C
Flammability	* Not applicable.
Explosive properties*	no data
Explosion limits:	% bottom: 1.1 Vol %, top: 8.0 Vol% (Styrene, vinylbenzene*)
Flash point	30°C
Auto ignition point	490°C*
Breakdown point	not available
pH	not available*
Kinematic viscosity*	not available
Dynamic viscosity*	300-500 mPas
Solubility:	Poorly soluble
n-octanol/water partition coefficient (Log Kow):	not available*
Vapour pressure:	7.3 hPa (Styrene; vinylbenzene*)
Vapour pressure at 50°C*	not available
Density*	1.1 g/cm^3
Relative density*	not available
Relative vapour density at 20°C*	not available
Relative density of saturated steam/air mixture	3.6 (styrene; vinylbenzene*)
Particle characteristics	not applicable

9.2 Other information
No data.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
The product is not reactive under normal conditions.

10.2. Chemical stability
The product is stable under normal conditions.

10.3. Possibility of hazardous reactions
May cause strong reactions with alkaline products as well as organic products , such as alcohols and amines. Hazardous polymerization may occur when exposed to high temperatures. *

10.4 Conditions to be avoided
Flammable product. Avoid contact with strong oxidants, peroxides, strong acids and bases. Avoid generation and accumulation of static electricity. Protect from sunlight 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
No hazardous product shall be formed under normal conditions of storage and use. Thermal decomposition may produce: Carbon monoxide. Other toxic gases. *

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on the hazard classes defined in Regulation (EC) No 1272/2008*

Acute toxicity*:
Acute toxicity (oral): Not classified (based on available data the classification criteria are not met).
Acute toxicity (skin): Not classified (based on available data the classification criteria are not met).
Acute toxicity (inhalation): Not classified. (Based on available data the classification criteria are not met).

Styrene

LD50 (oral, rat)	5000 mg/kg Source: ECHA*
LD50 (Skin, rat)	> 2000 mg/kg Source: ECHA *
LC50 (inhalation - rat (vapours))	11.8 mg/l Source: ECHA *

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/eye irritation: Causes eye irritation.
Allergic effect on airways or skin: The mixture is not classified as sensitizing. No data confirming the hazard class.
Mutagenic effect on germ cells: The mixture is not classified as mutagenic. No data confirming the hazard class.

Carcinogenicity: The mixture is not classified as carcinogenic. No data confirming the hazard class.
Styrene (100-42-5)*
IARC Group 2B– May be carcinogenic to humans.

Harmful effect on reproduction: Suspected of damaging the unborn child.

Specific target organ toxicity – single exposure: Not classified (based on available data the classification criteria are not met).*

Specific target organ toxicity – repeated exposure: Causes damage to organs (organ of hearing) through prolonged or repeated exposure.*
Styrene (100-42-5)*
Causes damage to organs (organ of hearing) through prolonged or repeated exposure.

Aspiration hazard: No data confirming the hazard class.

11.2. Information on other hazards*
No further data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Hazardous for the aquatic environment, short-time (acute): Not classified (based on available data the classification criteria are not met). *
Hazardous to the aquatic environment, long-term (chronic): Not classified (based on available data the classification criteria are not met). *
It is not easily degradable. *

Styrene (100-42-5)*
LC50 - Fish [1] 10 mg/l Source: ECHA
EC50 - Crustaceans [1] 4.7 mg/l Source: ECHA
EC50 72h - Algae [1] 4.9 mg/l Source: ECHA

12.2. Persistence and degradability
No further data available.*

12.3. Bioaccumulative potential
Log POW: 2,96 (OECD 107) – poor bioaccumulative potential.
Styrene.

12.4. Mobility in soil
No further data available.*

12.5. Results of PBT and vPvB assessment
No data.

12.6. Endocrine disrupting properties*
No further data available.*

12.7. Other hazardous effects
No data.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Dispose of according to applicable local and official waste regulations – see section 15.
Dispose of the contents/container as directed by an authorized sorting and collection centre. Do not discharge the product into the sewage system. Dispose of the product and packaging as hazardous waste. Do not dispose of with household waste. After cleaning, recycle or dispose of at an authorized facility. Flammable vapours may accumulate in the container.*

Product remains: Unhardened product residues are hazardous waste.
Waste code: 08 04 09 Do not dispose the product into the sewage system. Must not be disposed of with municipal waste. Remove the remains of the mixture carefully and harden with the use of the proper B component, a (waste) hardener from the set. Hardened product is not a hazardous waste.
CAUTION: harden the remains in small portions away from flammable products. High amounts of heat are released during chemical reaction!

Contaminated packaging: Packaging containing unhardened product remains is hazardous waste.

Waste code: 15 01 10. Must not be disposed of with municipal waste. Contaminated container should be handed over to entities, which are authorized to collect, recover or dispose of wastes.

SECTION 14: TRANSPORT INFORMATION

According to ADR/ IMDG/ IATA:

ADR	IMDG	IATA
14.1. UN number or ID number*		
1866	1866	1866
14.2. UN proper shipping name		
RESIN, SOLUTION*	RESIN SOLUTION *	RESIN SOLUTION *
Description of the shipping document*:		
UN 1866 RESIN, SOLUTION, 3, III, (D/E)	UN 1866 RESIN SOLUTION, 3, III (30°C c.c.)	UN 1866 Resin solution, 3, III
14.3. Transport hazard class (-es)		
3	3	3
		
14.4. Packaging group		
III	III	III
14.5. Environmental hazards		
Environmentally hazardous: No	Environmentally hazardous: No Marine pollutants: No	Environmentally hazardous: No
No further data available.		

14.6 Special precautions for users

Road transport*:

Classification code (ADR)	F1
Limited Quantities (ADR)	5l
Special packing provisions (ADR)	PP1
Mixed Packing Regulations (ADR)	MP19
Transport category (ADR)	3
Special provisions for carriage– Packages	V12
Tunnel restriction code (ADR)	D/ E

Sea transport*:

Special provisions (IMDG)	223, 955
Limited quantities (IMDG)	5L
Special packing provisions (IMDG)	PP1
EmS number (Fire)	F- E
EmS number (Spillage)	S- E
Cargo Stowage Category (IMDG)	A

Air transport*:
No data.

14.7. Sea transport in bulk in accordance with IMO instruments*
Not applicable.

SECTION 15: REGULATORY INFORMATION

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

EU Provisions*:
Annex XVII to the REACH Regulation (restriction conditions): It does not contain substances listed in Annex XVII to the REACH Regulation (restriction conditions).
Annex XIV to the REACH Regulation (List of Authorizations): It does not contain substances listed in Annex XIV to the REACH Regulation (List of Authorizations)
REACH Candidate List (SVHC): Contains no substances listed on the REACH Candidate List
PIC Regulation (EU 649/2012, Prior Informed Consent): It does not contain substances listed on the PIC list (EU Regulation 649/2012 on the export and import of dangerous chemicals)
POP Regulation (EU 2019/1021, Persistent Organic Pollutants): It does not contain substances listed on the POP list (EU Regulation 2019/1021 on persistent organic pollutants)
Ozone Depletion Regulation (EU 1005/2009): Contains no substances listed in the ozone depleting list (EU Regulation 1005/2009 on substances that deplete the ozone layer)
Explosives Precursors Regulation (EU 2019/1148): It does not contain substances listed on the list of explosives precursors (EU Regulation 2019/1148 on the marketing and use of explosives precursors)
Drug Precursors Regulation (EC 273/2004): It does not contain any substance(s) listed on the list of drug precursors (Regulation EC 273/2004 on the manufacture and marketing of certain substances used for the illicit manufacture of narcotic drugs and psychotropic substances)

Other regulations*:
Material Safety Data Sheet EU format according to Commission Regulation (EU) 2020/878.
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) no 1907/ 2006.
ADR agreement - Annex to the Journal of Laws of April 26, 2019. Government Statement of February 18, 2019 on the entry into force of amendments to Annexes A and B to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), drawn up in Geneva on September 30 1957. (Official Journal 2019, item 769).

15.2. Chemical safety assessment
Not performed.

SECTION 16: OTHER INFORMATION

Explanation of abbreviations and acronyms used in the MSDS*:
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
ATE Estimated acute toxicity
BCF bioconcentration factor
BLV Quantitative limit value
BOD Biochemical Oxygen Demand (BOD)
COD Chemical oxygen demand (COD)
DMEL Derived level causing minimal changes
DNEL Derived no effect level
EC number: European Community number
EC50 Medium effective concentration
EN European standard
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IMDG International Maritime Code for Dangerous Goods
LC50 The concentration of the substance causing the death of 50% of the population of test organisms
LD50 The Dose causing the death of 50% of the population of test organisms
LOAEL The lowest level at which harmful changes are observed
NOAEC Concentration at which no adverse effects are observed
NOAEL Dose level at which no adverse effects are observed
NOEC Maximum Concentration at which no adverse effects are observed
OECD Organization for Economic Cooperation and Development
OEL Occupational exposure limit value
PBT substance, which is Persistent, Bio-accumulative and toxic
PNEC Predicted no-effect concentration
RID Regulations Concerning the International Transport of Dangerous Goods by Rail
SDS Material Safety Sheet
STP Sewage Treatment Plant
ThOD Theoretical Oxygen Demand (ThOD)
TLM Middle tolerance limit
VOC Volatile Organic Compounds
CAS number CAS number
N.O.S. Not otherwise specified
vPvB very Persistent and very Bio-accumulative
ED Endocrine disrupting properties

Other data sources:
ECHA European Chemicals Agency
TOXNET Toxicology Data Network

Tips for training.*:
Use in accordance with health and safety rules and safety procedures.

Full text of hazard statements mentioned in section 2-15 of the Sheet:

Acute Tox. 4 (Inhalation)	Acute toxicity (after inhalation), category 4
Eye Irrit. 2	Serious eye damage/eye irritation, category 2
Flam. Liq. 3	Flammable liquid, category 3
H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes eye irritation.
H332	Harmful if inhaled.
H361d	Suspected of damaging the unborn child.
H372	May cause damage to organs through prolonged or repeated exposure.
Repr. 2	Reproduction toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1

Classification was made using the calculation method in accordance with the classification rules contained in Regulation No. 1272/2008 / EC

Flam. Liq. 3	H226	Based on research results
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Repr. 2	H361d	Expert assessment
STOT RE 1	H372	Calculation method

Changes in the Sheet:
Update of sections:
9: rewording of sub-section 9.1: Information on basic physical and chemical properties
11: rewording of sub-section 11.1: Information on the hazard classes defined in Regulation (EC) No 1272/2008
12: new subsection 12.6: Endocrine disrupting properties.
14: rewording of sub-section 14.1: UN number or ID number; rewording of sub-section 14.7: Sea transport in bulk in accordance with IMO instruments.
15: added subsections 15.1.1, 15.1.2.
Changes in the content of sections: 2.1, 2.2, 2.3, 3.2, 4.1, 4.2, 4.3, 5.1, 5.3, 6.2, 6.3, 7.1, 7.2, 8.1, 8.2, 9.1, 10.3, 10.6, 11.1, 11.2, 12.1, 12.2, 12.4, 12.6, 13.1, 14.1, 14.2, 14.5, 14.6, 14.7, 15.1, 16.
General update.

Sheet number: 06-0P1L-0123-V5