REPAIR BOX, POLIESTER RESIN

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

1.1. Product identification

REPAIR BOX, POLIESTER RESIN

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

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

1.4. Emergency telephone

+48 34 329 45 03 (from 8:00 am. to 3.00 pm.)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

The mixture was classified as dangerous according to current regulations – see section 15 of the Sheet.

Classification 1272/2008/EC:
Suspected of damaging the unborn child (Repr. 2)
Causes skin irritation. (Skin Irrit.2)
Causes eye irritation. (Eye Irrit.2)
Causes damage to organs through prolonged or repeated exposure. (STOT RE 1)
Flammable liquid and vapour. (Flam.liq.3)

2.2. Label elements:

Contains:
Styrene

Pictograms:

Warning word: **Danger**

Risk index:
H226 Flammable liquid and vapour.
H361d Suspected of damaging the unborn child.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H372 Causes damage to organs through prolonged or repeated exposure.

Safety index:
P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
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 close to the ground level and in lower parts of rooms.

REPAIR BOX, POLIESTER RESIN

Styrene polymerization may occur under the influence of high temperature or as a result of contact with strong oxidants, peroxides, strong acids, bases, metal salts, copper and its alloys. Styrene polymerization is a highly exothermic process.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable.

3.2. Mixtures

Product identification

REPAIR BOX, POLIESTER RESIN

Styrene
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

Full text of the phrases identifying the types of hazard provided in section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

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

Inhalation:
Take the victim outside to the fresh air, ensure quiet surrounding, in case of no breath perform artificial respiration. **Call a doctor.**

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

Eyes:
Rinse immediately with plenty of water for about 15 min, avoid strong water jet- risk of comea damage, consult a doctor.

Alimentary tract:
Do not cause 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 both acute and delayed

Styrene vapours in low concentrations may cause eye lacrimation, metallic taste in mouth; painful and reddened conjunctiva, and in higher concentrations – cough, dizziness, disequilibrium.

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
Styrene polymerization may occur under the influence of high temperature or as a result of contact with strong oxidants, peroxides, strong acids, bases, metal salts, copper and its alloys. Styrene polymerization is a highly exothermic process. Carbon monoxide and other toxic gases may be generated in case of fire.

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency measures
For persons not being members of aid giving staff:
Remove ignition sources. Ensure sufficient ventilation of the room. Avoid direct contact with the released substance. Avoid contact with skin and eyes. Personal safety measures – see section 8 of Material Safety Data Sheet.

For persons being the members of aid giving staff:
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 Material Safety Data Sheet.
Disposal considerations – see section 13 of the Material Safety Data Sheet.

SECTION 7: HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES

7.1. Precautions for safe handling
Keep away from heat and sources of ignition. Prevent leakage to the sewage system, surface waters, underground waters and soil. Use only in well ventilated rooms. Do not smoke. Do not inhale vapours. Avoid contact with skin and eyes. Take precaution measures against electrostatic discharge. Use personal protection measures – see section 8 of the Material Safety Data Sheet.

7.2. Conditions for safe storage including any incompatibilities
Store in well sealed original containers. Do not store near large amounts of organic peroxides or other strong oxidants. Take precaution measures against electrostatic discharge. Store in cool, well ventilated rooms.
Protect from low temperatures, the sunrays and heat sources.

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.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION MEASURES

8.1. Control parameters

CAS NUMBER:	SUBSTANCE	MPC (mg/m^3)	MPIC (mg/m^3)	MPCC (mg/m^3)
100-42-5	Styrene	50	200	---
121-69-7	N,N-dimethylaniline	12	40	

National acceptable biological values:

CAS NUMBER 100-42-5
SUBSTANCE ABSORBED Styrene
SUBSTANCE MARKED mandelic acid + phenyl gloxylic acid
MATERIAŁ BIOLOGICZNY urine*
WARTOŚCI DSB 350 mg/g creatinine

Notice: * single sample, taken at the end of a daily exposure any day.

PN-EN 482: 2012 Occupational exposure – General requirements for the characteristics of procedures of measurements of chemical factors.
PN-EN-689: 2002. Workplace atmospheres. Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values.
PN Z-04008-7:2002 Protection of air cleanliness. Sampling. Principles of air sampling in the work environment and interpretation of results.

8.2. Exposure control

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.

Skin protection:
Proper protective clothing (coated, impregnated fabrics).

Workplace:
Fixed fume extraction and general ventilation.
People suffering from respiratory tract hypersensitivity (asthma, chronic respiratory tract inflammation) should avoid contact with the product.

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	Highly viscous liquid
Colour	According to specification
Odour	Slightly sweet to strong
Odour threshold	0.43 mg/m^3 (styrene)
pH	Not applicable
Melting /freezing point	-30°C
Boiling point	146°C
Flash point	30°C
Autoignition point	400°C
Breakdown point	Not specified
Evaporation rate	Not specified
Flammability (solid, gas)	Not applicable
Explosion limits	% bottom: 1.1 vol% top: 8.0 vol% (styrene)
Vapour pressure	about 7.3 hPa (20°C) (styrene)
Vapour density (with regards to air)	3.6 (styrene)
Density	According to specification
Solubility (in water)	Very poor
n-octanol/water partition coefficient	3,2 (styrene)
Viscosity (rotative rheometer)	According to specification
Explosive properties	Not applicable
Oxidizing properties	Not applicable

9.2. Other information

No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
Product not reactive under normal conditions.

10.2. Chemical stability
Product stabile under normal conditions.

10.3. Possibility of hazardous reactions
Styrene polymerization may occur under the influence of high temperature or as a result of contact with strong oxidants, peroxides, strong acids, bases, metal salts, copper and its alloys. Uncontrolled polymerization in a closed container might result in an explosion. Carbon monoxide and other toxic gases are generated as a result of thermal decomposition.

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 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.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
No experimental data available on the preparation. Evaluation based on the data on dangerous ingredients included in the preparation.

a) Acute toxicity

Styrene

LD50 (rat, ingestion)	5000 mg/kg
LC50 (rat, inhalation)	24000 mg/m³ (4 h)
TCL0 (human, inhalation)	2600 mg/m³
LCL0 (human, inhalation)	43000 mg/m³

N,N-dimethylaniline

LD_{50} (rat, ingestion)	1300 mg/kg
LD_{50} (human, ingestion)	50 mg/kg
LC_{L0} (rat inhalation)	250 mg/m³

b) Caustic /irritating effect on skin
Causes skin irritation.

c) Serious eye damage / eye irritation
Causes eye irritation.

d) Allergic effects on respiratory tract or skin
The mixture is not classified as having allergic effects. No available data confirming the hazard class.

e) Mutagenic effect on germ cells
The mixture is not classified as mutagenic. No available data confirming the hazard class.

f) Carcinogenicity
Mixture is not classified as carcinogenic. No available data confirming the hazard class.

g) Harmful effect on reproduction
Suspected of damaging the unborn child.

h) Toxic effect on target organs – single exposure

Styrene vapours in low concentrations may cause eye lacrimation, metallic taste in mouth; in concentrations of about 800 mg/m³ – painful and reddened conjunctivas, and in higher concentrations – cough, dizziness, disequilibrium. Prolonged exposure causes drowsiness, disturbances of consciousness; possible paralysis of respiratory centre.

i) Toxic effect on target organs – repeated exposure
Drowsiness, disturbances of consciousness; possible paralysis of respiratory centre. Causes damage to organs (hearing organ) through prolonged or repeated exposure inhalation).

j) Aspiration hazard
No available data confirming the hazard class.

Exposure methods:
Respiratory tract: Harmful in case of inhalation.
Skin: Irritating to skin.
Eyes: Irritating to eyes.
If swallowed the substance may cause irritation of the alimentary tract, nausea, vomiting and diarrhea.
Poisoning symptoms:
Headaches and dizziness, fatigue, decreased muscle power, drowsiness and in exceptional instances loss of consciousness. If swallowed, the substance may cause irritation of alimentary tract, nausea, vomiting and diarrhea. Depressing effect on the central nervous system.

SECTION 12: ECOLOGICAL INFORMATION

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

12.1. Toxicity

styrene

Acute toxicity for fish / LC50 (96 h)	4-10 mg/l/96h
Acute toxicity for crustacea *Daphnia magna* / EC50/24h	182 mg/l/24h
Number in catalogue of water hazardous substances:	187
Water hazard class:	2

N,N-dimethylaniline

Acute toxicity for Daphnia Magna / : LC50 (48h)	5mg/l
Acute toxicity for algae: / LC50 (96h)	340 mg/l
Number in catalogue of water hazardous substances:	1152
Water hazard class:	2

12.2. Persistence and degradability

styrene
Biodegradability: 80% (closed bottle test)

12.3. Bioaccumulative potential

styrene
Log Pow: 2,96 (OECD 107) - low bioaccumulation ability

12.4. Mobility in soil

Very poorly soluble in water.

12.5. Results of PBT and vPvB assesment

No data available.

12.6. Other hazardous effects

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product must be disposed of in compliance with the proper local and statutory regulations with regard to waste – see point 15.

Product remains:
Unhardened remains of the product are harmful waste, waste code: 08 04 09*. 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 B component (waste hardener) included in the set. Hardened product is not harmful waste.
CAUTION: harden the remains in small portions and away from flammable products. Large amounts of heat are released during chemical reaction!

Contaminated container:
A container with unhardened remains of the product is harmful waste. Waste code: 15 01 10*. Do not store with communal waste. The contaminated container should be disposed with entities which are authorized to collection, recover o disposal.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number
1866

14.2. UN proper shipping name
RESIN IN SOLUTION, flammable

14.3 Transport hazard class (es)
3

14.4. Packaging group
III

14.5. Environmental hazards
no

14.6. Special precautions for user
Do not transport together with products of class 1 (except products of class 1.4S), and some products of class 4.1 and 5.2. During the transport avoid direct contact with products of class 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 73/78 Convention and the IBC Code
Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations / legislations specific for the substance or mixture
• 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 Commission Regulation (EC) 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. Official Journal of EU L 136 of May 29 2007. Official Journal of EU L 304 of November 22 2007, Official Journal of EU L268 of October 09 2008, Official Journal of EU L 46 of February 17 2009, Official Journal of EU L164 of June 26 2009, Official Journal of EU L133/1 of May 31 2010 with later amendments.

• Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Official Journal of EU L 132 of May 29 2015.
• 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 (Official Journal of EU L 353 of December 31 2008); Official Journal of EU L 235 of September 5 2009, Official Journal of EU L 83 of March 30 2011, Official Journal of EU L 179 of July 11 2012, Official Journal of EU L 149 of June 1 2013, Official Journal of EU L 261 of October 3 2013, Official Journal of EU L 167 of June 2014, Official Journal of EU L 197 of July 25 2015.

15.2. Chemical safety assessment
Not performed.

SECTION 16: OTHER INFORMATION
Full text of the phrases identifying the types of hazards and R phrases mentioned in sections 2-15:

Flam. Liq. 3	Flammable Liquids 3
H226	Flammable liquid and vapour.
Acute Tox. 4	Acute Toxicity 4
H332	Harmful if inhaled.
STOT SE 3	Toxic effect on target organs – single exposure, cat. 3
H335	May cause respiratory irritation
Eye Irrit. 2	Eye Irritation 2
H319	Causes serious eye irritation.
Skin Irrit. 2	Skin Irritation 2
H315	Causes skin irritation (category 2).
Repr.2	Harmful effect on reproduction, hazard category 2
H361d	Suspected of damaging the unborn child.
STOT RE 1	Toxic effect on target organs – repeated exposure, cat. 1
H372	Causes damage to organs through prolonged or repeated exposure.
Asp. Tox. 1	Aspiration Toxicity 1
H304	May be fatal if swallowed and enters airways.

SECTION 16: OTHER INFORMATION

Explanations of the abbreviations and acronyms used in the Material Safety Data Sheet:
Nr CAS – numerical symbol ascribed to a chemical substance by the American organization Chemical Abstracts Service (CAS).
Nr EC – 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 mentioned 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
Classification based on calculation method according to classification rules included in Regulation 1272/2008/EC

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

Changes: general update

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