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

1.1. Product identification

Product name:
PRIMER FOR PLASTIC - SPRAY

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses:	a primer to be used with decorative topcoats for various types of surface made of polypropylene and other materials, to be applied by spraying.
Uses advised against:	not specified.

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 (7:30 am to 03:30 pm)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of substance or mixture

Aerosol 1	H222-H229
Asp. Tox. 1	H304*
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Acute Tox. 4	H332
STOT SE 3	H335
STOT RE 2	H373

Extremely flammable aerosol. Pressurized container: May burst if heated. May be fatal if swallowed and enters airways. Causes skin irritation. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. May cause damage to organ through prolonged or repeated exposure.
* no product labelling is required for this hazard when launched on the market in aerosol containers.

2.2. Label elements

Pictograms indicating hazard category:

Warning word: **Danger.**

Contains:
Xylene.
Ethylbenzene.
Chlorinated polyolefin.

Hazard statements:

H222	Extremely flammable aerosol
H229	Pressurized container: May burst if heated.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P271	Use only outdoors or in a well-ventilated area.
P333+P313	If skin irritation or a rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists get medical advice/attention.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P501	Dispose of contents / container to a container intended for selective waste collection.

2.3. Other hazards
The product does not contain any components which meet the PBT or vPvB criteria according to ANNEX XIII of the REACH Regulation.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances
Not applicable.

3.2. Mixtures

Component name Registration number	Concentration range	CAS No	EC no	Index number	Classification according to Regulation 1272/2008
hydrocarbons C_{3-4}, petroleum gas* 01-2119486557-22-XXXX	28 - 40%	68476-40-4	270-681-9	649-199-00-1	Flam. Gas 1, H220, Press. Gas, H280
	* The product contains <0,1% 1,3 butadiene, and is therefore not classified as mutagenic category 1B and carcinogenic category 1B. (Note K). The product contains propane and butane, for which national maximum occupational exposure limits have been determined.				
Ethyl methyl ketone 01-2119457290-43-XXXX	20 – 30%	78-93-3	201-159-0	606-002-00-3	Flam. Liq. 2, H225, Eye Irrit. 2, H319, EUH066, STOT SE 3, H336
	Substance with maximum occupational exposure limits determined on national and EU level.				
Xylene 01-2119488216-32-XXXX	20 - 40%	1330-20-7	215-535-7	601-022-00-9	Flam. Liq. 3, H226, Asp. Tox. 1, H304, Acute Tox. 4, H312, Skin Irrit. 2, H315, Eye Irrit. 2, H319, Acute Tox. 4, H332, STOT SE 3, H335, STOT RE 2, H373
	Substance with maximum occupational exposure limits determined on national and EU level.				
Chlorinated polyolefin -	5 - 10%	68009-36-9	polimer	-	Flam. Liq. 3, H226, Acute Tox. 4, H312, Acute Tox. 4, H332, Skin Irrit. 2, H315
Ethylbenzene 01-2119486136-34-XXXX	<5%	100-41-4	202-849-4	607-023-00-4	Flam. Liq. 2, H225, Asp. Tox. 1, H304, Acute Tox. 4, H332, STOT RE 2, H373
	Substance with maximum occupational exposure limits determined on national and EU level.				

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

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

In contact with skin:
Immediately take off contaminated clothes. Rinse contaminated skin with plenty of water and wash with plenty of water and soap. In case of alarming symptoms consult a doctor.

In contact with eyes:
In case of irritation consult a doctor. Protect the non-irritated eye, remove contact lenses. Rinse contaminated eyes thoroughly with water for 15-20 minutes. Avoid strong water jet – risk of comea damage.

In case of ingestion:
Exposure by this route usually does not occur. If swallowed, rinse mouth with water. Do not induce vomiting! Never give anything to the unconscious person. Consult a doctor and show the label.

After inhalation:
Move the victim to fresh air, ensure warmth and peace. If necessary, perform artificial respiration or give oxygen. If any alarming symptoms occur, consult a doctor.

4.2. Most important symptoms both acute and delayed

In contact with skin:
In case of repeated exposure possible skin dryness or cracking, degreasing, frostbite when spraying from short-distance, irritation.

In contact with eyes:
Redness, burning, lacrimation, irritation.

Inhalation:
High concentration of aerosol may cause irritation of the mucous membrane of respiratory system, drowsiness and dizziness

After swallowing:
Due to the form of the product, exposure of this kind does not occur.

Other effects of exposure:
The product may cause damage to organs through prolonged or repeated exposure.

4.3. Indications of any immediate medical attention and special treatment needed
The decision about methods of rescue procedure is taken by the doctor after a thorough assessment of the injured person's condition. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:
foam resistant to alcohol, carbon dioxide (CO_2), extinguishing powder, water mist.

Extinguish small fires with the use of carbon dioxide extinguisher (CO_2) or powder extinguisher (ABC or BC), extinguish large fires with foam resistant to alcohol or dispersed water currents. Fight large fires from secured positions.

Unsuitable extinguishing media:
Strong water jet – risk of fire spreading.

5.2. Special hazards arising from the substance or mixture
In case of fire harmful gases may be released, which contain carbon monoxides and other unidentified thermal decomposition products. Avoid breathing combustion products, as they may pose a risk for health. Pressurized container– danger of unsealing or even explosion at high temperatures.

5.3. Advice for firefighters
General protection measures typical in case of fire. Do not stay in a fire area without suitable clothing resistant to chemicals and self contained breathing apparatus. Do not allow fire-fighting water to enter the sewage system, surface water and groundwater. Gas can accumulate near the surface of the earth and travel over long distances creating a risk of fire or explosion. Cool endangered containers from a safe distance with water spray. Collect used extinguishing media.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency measures

Limit the access of unauthorized persons to the area of accident until the completion of appropriate cleaning operations.
Ensure that the removal of accident and its consequences is carried out only by trained personnel.
In the case of large spills, isolate the area at risk.
Avoid contact with skin and eyes.
Ensure adequate ventilation. Do not inhale the spray.
Announce a ban on smoking, using open fire and sparking tools.
Use personal protective equipment.

6.2. Environmental precautions
In case of the release of larger amounts of the product, prevent the product from spreading in the environment. Notify appropriate emergency services.

6.3. Methods and materials for containment and cleaning up
Remove the damaged packaging mechanically.
Collect spillage with non-flammable liquid absorbing materials (e.g. sand, earth, diatomaceous earth, vermiculite) and place in waste containers.
Treat the collected material as waste.
Clean contaminated area. Do not use sparking tools.
Do not smoke.

6.4. Reference to other sections
Disposal considerations – see section 13.
Personal protective measures – see section 8.

SECTION 7: HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES

7.1. Precautions for safe handling
Observe legal regulations for protection and safety. Avoid contact with eyes and skin. Use personal protective equipment. Avoid breathing the aerosol. Provide adequate general and / or local ventilation. Eliminate ignition sources - do not use open fire, do not smoke, do not use sparking tools and clothes made of fabrics prone to electrification; protect containers from heating. Do not spray over an open flame or glowing material. Prevent the accumulation of electrostatic charges.

7.2. Conditions for safe storage, including any incompatibilities
Store only in dry and cool place. Recommended storage temperature up to +35°C. Keep away from sources of fire and heat. Do not smoke, use open fire and sparking tools in the warehouse. Do not pierce or burn packages even after use.
Keep away from food, foodstuffs and animal feed. Avoid contact of the product with strong oxidizing agents (concentrated nitric acid, hydrogen peroxide, organic peroxides) – contact may cause ignition and corrosion of steel (acids, salt solutions) – risk of damage to aerosol containers and release of contents.

7.3. Special end use(s)
No information about uses other than mentioned in section 1.2 of the Sheet.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION MEASURES

8.1. Control parameters

Specification	MPC	MPIC	MPCC	Substance marked	Biological material	PBC
Xylene [CAS 1330-20-7]	100 mg/m^3	—	—	Methyl hippuric acid	urine	1.4 mg/l*
Butan-2-on [CAS 78-93-3]	450 mg/m^3	900 mg/m^3	—	—	—	—
Propane [CAS 74-98-6]	1800 mg/m^3	—	—	—	—	—
Butane [CAS 106-97-8]	1900 mg/m^3	3000 mg/m^3	—	—	—	—
Ethylbenzene [CAS 100-41-4]	200 mg/m^3	400 mg/m^3	—	mandelic acid	urine	20 mg/h

Recommended monitoring procedures:
Procedures should be applied to monitor the concentration of hazardous components in the air and the procedures for checking the cleanliness of air in the workplace – provided they are available and justified at a given position – in accordance with relevant Polish or European Standards taking into consideration conditions in the area of exposure and adequate measurement methodology adapted to the conditions of work.
Mode, type and frequency of tests and measurements should meet the requirements of national and Community provisions.

DNEL values for the components:

	Xylene	
DNEL	worker	consumer
inhalation, short-term exposure (local/systemic effects)	289 mg/m^3	174 mg/m^3
inhalation, long-term exposure (local/systemic effects)	77 mg/m^3	14.8 mg/m^3
skin, long-term exposure (systemic effects)	180 mg/kg b. w./day	108 mg/kg b. w./day
ingestion, long-term exposure (systemic effects)	—	1.6 mg/kg b w./day

8.2. Exposure control

Respect general rules of safety and hygiene. Avoid contact with skin and eyes. Immediately take off contaminated clothes. Provide general and / or local ventilation in the workplace in order to maintain the concentration of harmful agents in the air below the set limit values. Do not eat, drink or smoke while working with the product. Wash hands thoroughly before breaks and at the end of work. If during working processes there is a risk of clothing fire on the employee– no more than 20 m in a horizontal line from the stations where these processes are performed, emergency showers (safety showers) for washing the whole body and separate showers for eye washing should be installed.

Hands protection:
Use protective clothes resistant to the product (e.g.: butyl rubber). In case of short-term contact use protective gloves of the level of efficiency 2 or higher (breakthrough time >30 minutes). In case of prolonged contact use protective gloves of the level of efficiency 6 (breakthrough time >480 minutes). It is recommended to use protective cream on unprotected parts of the body. When using protective gloves in contact with chemical products, it is necessary to remember that given efficiency levels and corresponding breakthrough times do not reflect actual protection time at particular workplace, as this protection is influenced by many factors e.g. temperature, interaction of other substances etc. It is recommended to replace immediately the gloves if there are any symptoms of wear, damages or changes in appearance (colour, elasticity, and shape). Follow the manufacturer's instructions not only for the use of gloves, but also for cleaning, maintenance and storage. It is also important to properly remove the gloves so as to avoid contaminating your hands when doing this.

Body protection:
Antistatic protective clothing made of a dense fabric (preferably of natural fiber, e.g. cotton).
Safety footwear.

Eyes protection:
Protective goggles in a sealed casing with side protection (made of plastic resistant to organic solvents).

Respiratory protection:
Not required in normal working conditions. In case of insufficient ventilation use certified respirator with AX filter. In case of works in a limited area, insufficient oxygen content in the air, significant uncontrolled emission or other circumstances when filtering mask does not ensure sufficient protection, use self contained breathing apparatus.
Personal protection measures have to meet the requirements contained in national regulations and directive 89/686/EC (with following amendments). The employer is obliged to provide protection measures appropriate to the activities performed and meeting all quality requirements, including their maintenance and cleaning.

Environmental exposure control:
Avoid release into the environment; do not dispose of to the sewage system. Possible emissions from ventilation systems and process equipment should be checked to determine their compliance with the requirements of law concerning environmental protection.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state/form:	aerosol
Colour:	clear
Odour:	characteristic, solvent like
Odour threshold:	not specified
pH value:	not applicable
Melting/freezing point:	not specified
Initial boiling point (1013 hPa):	-42 do 142°C (propane, xylene respectively)
Flash point:	-105°C (propane)
Evaporation rate:	not specified
Flammability (solid, gas):	extremely flammable
Top/bottom explosion limit:	9.6/1.9% vol. (for propellant)
Vapour pressure:	>0.1MPa (-15°C), <2.55 MPa (70°C) – for propellant
Vapour density (air=1):	>1
Density (20°C):	about 0.7 kg/dm^3
Solubility:	0.012 kg/dm^3 (water)
n-octanol/water partition coefficient:	not specified
Autoignition point:	>287°C
Breakdown point:	not specified
Explosive properties:	does not show
Oxidizing properties:	does not show
Dynamic viscosity:	not specified

9.2. Other information
No results of additional tests.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
Reactive product. See also subsections: 10.3-10.5.

10.2. Chemical stability
The product is stabile if used and stored properly.

10.3. Possibility of hazardous reactions
Vapours may form explosive mixtures with the air.

10.4. Conditions to be avoided
Avoid heat sources and direct sunlight, as well as temperature over 50°C.

10.5. Incompatible materials
Avoid contact with strong oxidants**.**

10.6. Hazardous decomposition products
Unknown.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxicity of the components:

Xylene [CAS 1330-20-7]

LC50	(skin, rabbit)	1 700 mg/kg

Toxicity of the mixture

Acute toxicity

ATEmix	(skin)*	3065 mg/kg
ATEmix	(inhalation, vapours)*	20 mg/l
ATEmix	(inhalation, mist)*	2.72 mg/l

* ATEmix value calculated on the basis of adequate conversion factor from table 3.1.2. of the Regulation 1272/2008/EC.

Based on available data, classification criteria are not met.

Caustic/irritating effect on skin:
Causes skin irritation.

Serious eye damage / eye irritation:
Causes eye irritation.

Allergic effect on respiratory system or skin:
Based on available data, classification criteria are not met.

Mutagenic effect on germ cells:
Based on available data, classification criteria are not met.

Carcinogenicity:
Based on available data, classification criteria are not met.

Harmful effect on reproduction:
Based on available data, classification criteria are not met.

Toxic effect on target organs – single exposure:
May cause drowsiness or dizziness.

Toxic effect on target organs – repeated exposure:
May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard:
The mixture contains components of low viscosity, classified as posing a risk of aspiration after ingestion.
However, due to the form of the product, which prevents accidental ingestion, the product as a whole does not pose a risk of aspiration into lungs.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity of the components:

Hydrocarbons C_{3-4}				
Acute toxicity for fish	LC50	>24.11 mg/l	96 hours	(*Oncorhynchus mykiss*)
Acute toxicity for daphnia	EC50	>14.22 mg/l	48 hours	(*Daphnia magna*)
Ethyl methyl ketone				
Acute toxicity for fish	LC50	>100 mg/l	96 hours	(*Leuciscus idus*)
Acute toxicity for daphnia	EC50	>100 mg/l	48 hours	(*Daphnia magna*)
Acute toxicity for algae	EC50	>100 mg/l	7 days	(*Desmodesmus subspicatus*)
Xylene				
Acute toxicity for fish	LC50	20.9 mg/l	96 hours	(*Lepomis macrochirus*)
	EC50	26.7 mg/l	96 hours	(*Pimephales promelas*)
Ethylbenzene				
Acute toxicity for daphnia	LC50	94.44 mg/l	96 hours	(*Carassius auratus*)

Toxicity of the mixture:
The product is not classified as environmentally hazardous.

12.2. Persistence and degradability
Unknown for the mixture.
Xylene: 70% biodegradable within 10 days.

12.3. Bioaccumulative potential
Unknown for the mixture.
Xylene
log Po/w = 3.15
BCF = 25/9

12.4. Mobility in soil
The product is mobile in the aquatic environment and soil. Gasous components spread rapidly in the air. Mobility of the components of the mixture depends on their hydrophilic and hydrophobic properties as well as abiotic and biotic conditions of the soil, including its structure, weather conditions, season of the year and soil organisms.

12.5. Results of PBT and vPvB assessment
Components of the product have not been assessed as PBT and vPvB.

12.6. Other harmful effects
The mixture is not classified as hazardous to the ozone layer. Consideration should be given to the possibility of other harmful effects of the individual components of the mixture on the environment (e.g. the ability to interfere with the hormonal balance, the impact on the growth of global warming).

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Recommendations concerning the mixture:
Prevent entering the sewage system. Dispose of according to current regulations. Do not remove the product from the container.
Suggested waste code: 16 03 05* Organic waste containing dangerous substances
Waste code should be assigned at the place of its production.

Recommendations concerning waste containers:
Classification of this waste meets the requirements for dangerous waste. The container should be handed over to the authorized company. Do not dispose of with other types of wastes. Do not burn or pierce empty containers.
Community regulations: directives of the European Parliament and of the Council: 2008/98/EC and 94/62/EC.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number
UN 1950

14.2. UN proper shipping name
AEROSOLS, flammable

14.3. Transport hazard class(es)
2
Warning label: No 2.1

14.4. Packaging group
Not applicable.
Limited quantities 1l.

14.5. Environmental hazards
The mixture is not environmentally hazardous according to the criteria contained in transport regulations.

14.6. Special precautions for user
Avoid sources of ignition and heat. packages should not be thrown or exposed to impact. The containers should be placed on the vehicle or container in a way preventing them from falling.
EMS code: F-D, S-U (according to IMDG code for marine transport).

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

- European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).
- 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.
- 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.
- 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).
- Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.
- European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

15.2. Chemical safety assessment
Chemical safety assessment is not required for the mixture.

SECTION 16: OTHER INFORMATION

Full text of hazard statements used in the Sheet:

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapours.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
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.
EUH 066	Repeated exposure may cause skin dryness or cracking.

Explanation of abbreviations and acronyms:

MPC	Maximum Permissible Concentration.
MPIC	Maximum Permissible Istantaneous Concentration.
MPCC	Maximum Permissible Ceiling Concentration.
PBC	Permissible Biological Concentration.
PBT	Persistent, Bioaccumulative and Toxic.
vPvB	Very persistent and very bioaccumulative.
DNEL	Derived No-Effect Level.
PNEC	Predicted No-Effect Concentration.
Eye Irrit. 2	Eye irritation, cat. 2.
Skin Irrit. 2	Skin irritation, cat. 2.
Asp. Tox. 1	Aspiration hazard, cat. 1.

Flam. Liq. 2, 3	Flammable liquid, cat. 2, 3.
STOT SE 3	Toxic effect on target organs - single exposure, cat. 3.
STOT RE 2	Toxic effect on target organs - repeated exposure, cat. 2.
Flam. Gas 1	Flammable gas, cat. 1.
Press. Gas	Pressurized gas.

Trainings:
Before starting to work with the product, the user should familiarize himself with health and safety rules regarding the handling of chemicals, and, in particular, undergo appropriate workplace training. Persons connected with the transport of hazardous materials under the ADR Agreement should be properly trained in the scope of their duties (general, position and safety training).

References to key literature and data sources:
The safety data sheet has been developed on the basis of safety data sheets of components provided by the manufacturer and online databases as well as possessed knowledge and experience, taking into account currently applicable legal provisions.

Additional information:
The classification was made on the basis of physical and chemical tests and data on the content of hazardous ingredients by calculation method based on the guidelines of Regulation 1272/2008 / EC (CLP) together with later amendments. Acute toxicity of the mixture (ATEmix) was calculated on the basis of the appropriate conversion factor included in Table 3.1.2. of Annex I to the CLP Regulation, referring to the component classification category.

Information for the reader:
The user is responsible for taking all measures to meet the requirements of national law. The information contained in this sheet is a description of the safety requirements of the product. The user is fully responsible for determining the suitability of the product for specific purposes. The data contained in this sheet does not constitute an assessment of the user's workplace safety. The safety data sheet cannot be considered as a guarantee of the product's properties.

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