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

1.1 Product identification
SILICONE REMOVER

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

Identified uses:
Industrial, professional and consumer in coatings and cleaning agents.

Uses adviced against:
Other than specified above.

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 34 329 45 03 (8.00am - 03.00pm)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of substance or mixture
Classification according to Regulation EC 1272/2008 of December 16 2008 on classification, labelling and packaging (CLP).

General hazards:
The product is classified as hazardous according to current regulations.

Health hazard:

Asp. Tox. 1	Aspiration hazard, cat. 1, H304.
STOT SE 3	Toxic effect on target organs – single exposure, cat. 3, H336.
STOT RE 1	Toxic effect on target organs – repeated exposure cat. 1, H372 (CNS).
Skin Irrit. 2	Irritating to skin, cat. 2, H315.

Dangerous features:

Flam. Liq. 2	Flammable liquid, cat. 2, H225.

Environmental hazards:

Aquatic Chronic 2	Hazardous for aquatic environment, cat. chronic, cat. 2, H411.

2.2. Label elements

Contains:
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics.

Pictograms:

Warning word: **Danger.**

Hazard statements:

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H315	Causes skin irritation.
H411	Toxic to aquatic life with long-lasting effects.
H372	Causes damage to organs through prolonged or repeated exposure.

Precautionary statements on safe handling:

P261	Avoid breathing dust / fumes / gas / mist / vapour / spray.
P264a	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or a doctor.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P331	DO NOT induce vomiting.
P403+P235	Store in a well ventilated place. Keep cool.

2.3. Other hazards

EUH066 Repeated exposure may cause skin dryness or cracking.

The material can accumulate electrostatic charges that can ignite. The product may give off vapors from which flammable mixtures may be formed. Accumulated vapors can explode when they are brought close to the source of ignition.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances

No data.

3.2. Mixtures

Product identification

SILICONE REMOVER

a) Composition according to Regulation 1272/2008:

>50% hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics
CAS: no data
EC: 920-750-0
Registration number: 01-2119473851-33-XXXX
Asp. Tox. 1, H304, STOT SE 3, H336, EUH066, Flam. Liq. 2, H225, Aquatic Chronic 2, H411.

<15% hydrocarbons C6, isoalkanes, <5% n-hexane
CAS: no data
EC: 931-254-9
Registration number: 01-2119484651-34-XXXX
Aquatic Chronic 2, H411, Asp. Tox. 1, H304, Flam. Liq. 2, H225, STOT SE 3, H336, Skin Irrit. 2, H315.

<20% hydrocatbons, C7, n-alkanes, isoalkanes, cyclics
CAS: no data
EC: 927-510-4
Registration number: 01-2119475515-33-XXXX
Aquatic Chronic 2, H411, Asp. Tox. 1, H304, Flam. Liq. 2, H225, STOT SE 3, H336, Skin Irrit. 2, H315.

<15% hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatic (2-25%)
CAS: no data
EC: 919-446-0
Registration number: 01-2119458049-33-XXXX
Aquatic Chronic 2, H411, Asp. Tox. 1, H304, EUH066, Flam. Liq. 3, H226, STOT SE 3, H336, STOT RE 1, H372.

b) Components of the mixture:

<0,5% Cyclohexane
CAS: 110-82-7
CE: 203-806-2
Index no: 601-017-00-1
Aquatic Chronic 1, H410, Asp. Tox. 1, H304, Flam. Liq. 2, H225, STOT SE 3, H336, Skin Irrit. 2, H315.

<0.5% n-hexane
CAS: 110-54-3
EC: 203-777-6
Index no: 601-037-00-0
Aquatic Chronic 2, H411, Asp. Tox. 1, H304, Flam. Liq. 2, H225, Repr. 2, H361f, STOT SE 3, H336, STOT RE 2, H373, Skin Irrit. 2, H315.

If dangerous components are listed, explanation of H phrases provided in section 16 of the Material Safety Data Sheet.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eyes:
In case of contact with eyes immediately rinse with plenty of water. If irritation persists consult a doctor.

Skin:
In case of contact with skin, wash carefully with plenty of water and soap. Take off contaminated clothes.

Airways:
In case of inhalation remove the victim from the place of exposure, ensure access to fresh air. Persons giving first aid must avoid exposure to the product. In case of breathing difficulties, dizziness, nausea or loss of consciousness immediately call medical help. In case of breath arrest apply artificial mouth-to-mouth resuscitation.

Alimentary tract:
In case of ingestion do not induce vomiting. Immediately call medical help.

4.2. Most important symptoms both acute and delayed

Vapour concentrations exceeding permissible exposure limits have irritating effect on eyes and airways, they may cause headaches, dizziness, they have anaesthetic effect and may have other effects on central nervous system. Minute quantities of liquid product aspirated into lungs when swallowing or vomiting may cause chemical pneumonia or pulmonary oedema.

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

Symptomatic treatment.

SECTION 5: FIREFIGHTING MEASURES

5.1. Exstinguishing media

Extinguishing foams and powders, carbon dioxide.
Do not use full jet of water.

5.2. Special hazards arising from the substance or mixture

Highly flammable product. The products of incomplete combustion may contain carbon oxides. The vapours of the product are heavier than air, may move long distances and accumulate above the ground, they may pose a risk of ignition and return of the flame to the source of the leak.

5.3. Advice for firefighters

Order evacuation of the endangered area. Containers exposed to fire or high temperature should be cooled by spraying water (danger of bursting of the container due to pressure increase), if possible remove from the area of exposure. Prevent the leakage or extinguishing media with extinguishing water from entering ground water, sources of potable water and sewage system.
Use self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency measures

In case of leakage inform adequate authorities. Avoid contact with released product. Eliminate ignition sources (i.a. heat, open flames, electric sparks). Do not touch or walk on released product. Announce a smoking ban. Use personal protection measures (chemically resistant protective gloves made of polyvinyl acetate (they are not waterproof and they are not recommended in emergency situations), in case of contact with hot product, the gloves should be resistant to high temperatures and thermally insulated; it is recommended to use protective gloves resistant to aromatic hydrocarbons; breathing apparatus with filter/filters protecting against organic vapours or self contained breathing apparatus (SCBA), in case of small leakage, standard working clothes is sufficient; significant leakage: it is recommended to use clothes covering the whole body, made of anti-static material resistant to chemical substances, and, if necessary, resistant to high temperatures and thermally insulated.

6.2. Environmental precautions

Prevent leakage of the product into surface and ground water, ditches, basements and low-located closed rooms. In case of leakage into sewage system, water or contamination of soil notify adequate authorities.

6.3. Methods and materials for containment and cleaning up

Stop the leakage if possible (close the liquid inflow, seal, place damaged containers in tightly closed emergency containers). Eliminate ignition sources. Use foam to reduce vapours. In case of significant leakage, cooling the area with water jet may reduce the risk of hazardous vapour accumulation, it does not protect however against uncontrolled ignition. If the ambient temperature is min. 10°C lower than flash point, use protective barriers and collect the product from water surface or use proper absorbent, if conditions allow doing it. If the flash point does not exceed the ambient temperature min. 10°C, use floating barriers and allow evaporation of the product as measure of shoreline protection.

6.4. Reference to other sections
Information on appropriate personal protection measures provided in section 8 of the Sheet.
Information on additional waste treatment provided in section 13 of the Sheet.

SECTION 7: HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES

7.1. Precautions for safe handling
Avoid contamination of skin. Eliminate all sources of open flames and ignition. Avoid sparks. Do not smoke. Use special precautionary measures preventing formation of static electricity. Earth all the equipment. Use only in well ventilated rooms. Avoid leakages from the containers to eliminate the risk of slipping on spilled product.

7.2. Conditions for safe storage including any incompatibilities
Store in tightly closed packagings in a cool well ventilated place. Transport and carry the containers carefully. Storage containers should be connected and earthed.

7.3. Special end use(s)
No data.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION MEASURES

8.1. Control parameters

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics (vapours)
RCP-TWA 260 ppm; 1200 mg/m^3
DNEL value for workers in conditions of chronic exposure:
Skin: 773 mg/kg/day
Airways: 2035 mg/m^3
DNEL value for consumers in conditions of chronic hazard:
Skin: 699 mg/kg/day
Airways 608 mg/m^3
Alimentary tract: 699 mg/kg/day

Hydrocarbons C7, n-alkanes, isoalkanes, cyclics
DNEL value for workers in conditions of chronic hazard – systemic effect:
Skin: 300 mg/kg/day
Airways: 2085 mg/m^3
DNEL value for consumers in conditions of chronic hazard – systemic effect:
Skin: 149 mg/kg/day
Airways: 477 mg/m^3
Alimentary tract: 149 mg/kg/day

Hydrocarbons C6, isoalkanes, <5% n-hexane
Vapours RCP-TWA = 1200 mg/m^3, 315 ppm (hydrocarbons together)
DNEL value for workers in conditions of chronic hazard – systemic effect:
Skin: 13964 mg/kg/day
Airways: 5306 mg/m^3
DNEL for consumers in conditions of chronic hazard – systemic effect:
Skin: 1377 mg/kg/day
Airways: 1137 mg/m^3
Alimentary tract: 1301 mg/kg/day

Hydrocarbons C9-C12, n-alkanes, isoalkanes, cyclics, aromatic (2-25%)
Vapours – RCP= 52 ppm
DNEL value for workers in conditions of long-term exposure:
Skin: 44 mg/kg/day
Airways: 330 mg/m^3
DNEL value for general population in conditions of long-term exposure:
Skin: 26 mg/kg/day
Airways: 71 mg/m^3
Alimentary tract: 26 mg/kg/day

Maximum permissible concentrations:

	MPC	MPIC
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics (vapours) – white spirit:	300 mg/m^3	900 mg/m^3
Cyclohexane (substance marked with the note "skin"):	300 mg/m^3	1000 mg/m^3
n-hexane (substance marked with the note "skin"):	72 mg/m^3	not determined

Marking the substance with the note "skin" means that absorption of the substance through the skin may be as relevant as through airways.

PN-89/Z-01001/06	Protection of air cleanliness. Names, terms and units. Terminology for testing air quality at workplaces.
PN Z-04008-7:2002	Protection of air cleanliness. Sampling. Principles of air sampling in the work environment and interpretation of results.
PN-EN-689: 2002	Air at work stations - guidelines for assessing inhalation exposure to chemical agents by comparing with limit values and measurement strategy

Caution: When the concentration of the substance is established and known, the choice of personal protection measures should be made considering concentration of the substance on particular workstation, time of exposure and activities performed by the worker. In emergency situation, if concentration of the substance at work station is unknown, use personal protection measures of the highest recommended protection class.
The employer is obliged to ensure that personal protection measures used, clothes and footwear have protective and usable properties and ensure their proper cleaning, maintenance, repair and disinfection.

8.2. Exposure control

Eye protection:
Protective glasses or goggles.

Hand protection:
Protective gloves resistant to chemical substances, made of nitrile rubber EN 420 and EN 374.

Respiratory protection:
If permissible concentrations are exceeded use filter half-mask protecting airways – filtering material type A EN 136, 140 and 405 contain protective filter masks and EN 149 and 143 contain recommendations concerning filters.

Technical protection measures:
Ventilation of the rooms.

Other protective equipment:
Protective clothes.

General recommendations:
Always respect the rules of personal hygiene i.a. wash hands regularly after contact with the product, wash hands before meals. Wash protective clothes and clean devices – to remove contamination.

Environmental control:
Prevent leakage of the product into surface and ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:	clear liquid
Odour:	no available data
Odour threshold:	no available data
pH:	no available data
Melting/freezing point, [°C]:	no data
Initial boiling point and boiling range, [°C]:	no available data
Flash point, [°C]:	-12±1
Evaporation rate:	no available data
Flammability (solid, gas):	not applicable to liquids
Top explosion limit, [% V/V]:	10.1
Bottom explosion limit, [% V/V]:	1.9
Vapour density with regard to air:	no available data
Density at 20°C [kg/m^3]	705-765
Solubility in water:	negligible
Solubility in other solvents:	no available data
n-octanol/water partition coefficient:	no available data
Autoignition point, [°C]:	275
Breakdown point, [°C]:	no available data
Explosive properties:	no available data
Oxidizing properties:	no available data
Refraction index:	1.400-1.420
Molecular weight:	not applicable
Physical state:	liquid

9.2. Other information

Minimum ignition energy:	[mJ]
Electrical conductivity:	[PS/m]

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
No data.

10.2. Chemical stability
Product stabile in normal conditions.

10.3. Possibility of hazardous reactions
No data.

10.4. Conditions to be avoided
Avoid high temperatures, electrical sparks, open flames and other ignition sources.

10.5. Incompatible materials
Strong oxidants.

10.6. Hazardous decomposition products
Products of not complete combustion may contain carbon oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

a) Acute toxicity:

Ingestion:	Based on available data, the classification criteria are not met.
Skin:	Based on available data, the classification criteria are not met.
Inhalation:	Based on available data, the classification criteria are not met.

Toxicity data of the components of the mixture:

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics:
Acute toxicity (based on findings for representative formulations):

Ingestion:	LD50 > 5000 mg/kg	(rat)
Skin:	LD50 > 2800 mg/kg	(rabbit)
Inhalation:	LD50 > 23.3 mg/l / 4h	(rat)

Hydrocarbons C6, isoalkanes, <5% n-hexane and hydrocarbons, C7, n-alkanes, isoalkanes, cyclics:
Acute toxicity (based on findings for representative formulations):

Ingestion:	LD50 > 5840 mg/kg
Skin:	LD50 > 2920 mg/kg
Inhalation:	LD50 > 25.2 mg/l (vapours)

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatic (2-25%):
Acute toxicity:

Ingestion:	LD50 > 15000 mg/kg	(rat)
Skin:	LD50 > 3400 ml/kg	(rabbit)
Inhalation:	LD50 > 13.1 mg/l / 4h	(vapours; rat)

b) Caustic/irritating effect on skin:
Causes skin irritation (based on information on the components).

c) Serious eye damage / eye irritation:
No data.

d) Irritating effect on respiratory tract or skin:
Brak danych.

e) Mutagenic effect on germ cells:
No data.

f) Carcinogenicity:
No data.

g) Harmful effect on reproduction:
No data.

h) Toxic effect on target organs – single exposure:
Narcotic effect, may cause drowsiness and dizziness.

i) Toxic effect on target organs – repeated exposure:
Causes damage to organs through prolonged or repeated exposure – central nervous system.

j) Aspiration hazard:
Risk of aspiration into lungs, hazard of death.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics:
Acute toxicity:

For invertebrates:	EL50 3 mg/l/48h; NEOC 0.17 mg/l/21d; LOEC 0.32 mg/l/21d	(*Daphnia magna*)
For algae:	NOELR 10 mg/l/72h; EL50 10-30 mg/l/72h	(*Pseudokirchneriella subcapitata*)
For fish:	LL50 >13.4 mg/l/96h	(*Oncorhynchus mykiss*)

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics (2-25%):
Acute toxicity:

For daphnia:	EL50 10-22 mg/l/48h; NEOC 0.097 mg/l/21d; LOEC 0.203 mg/l/21d	(*Daphnia magna*)
For algae:	NOELR 1 mg/l/72h; EL50 4,6-10 mg/l/72h	(*Pseudokirchneriella subcapitata*)
For fish:	LL50 > 10-30 mg/l/96h	(*Oncorhynchus mykiss*)

12.2. Persistence and degradability
Biodegradable product (based on the information on the components).

12.3. Bioaccumulative potential
No data available.

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
No data available.

12.6. Other hazardous effects
No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste code:
07 01 04* Other organic solvents, washing liquids and mother liquors.

Dispose of, for example, by burning in specially prepared devices complying with waste disposal regulations.

SECTION 14: TRANSPORT INFORMATION

Road/rail transport (ADR/RID):

14.1. UN number:	1993
14.2. UN proper shipping name:	Flammable liquid, n.o.s. (contains: hydrocarbons, C7-C9, n-aklanes, isoalkanes, cyclics, hydrocarbons C6, isoalkanes, <5% n-hexane, hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
14.3. Transport hazard class:	Class: 3, classification code: F1
14.4. Packaging group:	II
14.5. Environmental hazard:	
Hazard identification number:	33
Label:	3

Sign: N

Tunnel restriction code: D/E

Marine transport (IMDG)
14.1. UN number: no data
14.2. UN proper shipping name: no data
14.3. Transport hazard class: no data
14.4. Packaging group: no data
14.7. Transport in bulk according to Annex II of MARPOL 73/78 Convention and the IBC Code
No data.

Air transport (ICAO)
14.1. UN number: no data
14.2. UN proper shipping name: no data
14.3. Transport hazard class: no data
14.4. Packaging group: no data

Inland waterway transport (ADN)
14.1. Numer UN: no data
14.2. UN proper shipping name: no data
14.3. Transport hazard class: no data
14.4. Packaging group: no data

14.5. Environmental hazard
The product is environmentally hazardous according to the criteria contained in UN model regulations.

14.6. Special precautions for user
No data.

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 December 18 2006 on REACH with later amendments
- Regulation of the European Parliament and of the Council (EC) No 1272/2008 of December16 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 the European Union L335/1 of December 312008) with later amendments.
- European Agreement concerning International Carriage of Dangerous Goods by Road (ADR).

15.2. Chemical safety assessment
No data.

SECTION 16: OTHER INFORMATION

The above given information is based on our current knowledge and applies to the product in the form, in which it is used. The data concerning this product is presented to take account of safety requirements and not to guarantee its specific properties.
If the conditions of use of the product are not under control of the producer, the user is responsible for safe use of the product.
The employer is obliged to inform all the workers who are in contact with the product about the hazards and personal protection measures listed in this safety data sheet.
This safety data sheet has been developed on the basis of a safety data sheet provided by the manufacturer and / or online databases as well as applicable regulations regarding hazardous substances and chemical preparations.

H and EUH statements:
H304 May be fatal if swallowed and enters airways.
H336 May cause drowsiness or dizziness.
H225 Highly flammable liquid and vapour.

H411	Toxic to aquatic life with long-lasting effects.
H410	Very toxic to aquatic life with long-lasting effects
H315	Causes skin irritation.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
EUH066	Repeated exposure may cause skin dryness or cracking.

Classification concerning acute toxicity was based on calculation method.

Trainings:
Persons participating in the product trade should be trained in terms of handling, safety and hygiene. Drivers should be trained and obtain relevant certificate in accordance with the requirements of ADR regulations.

Abbreviations:
Expl.- Explosive
Flam. Gas – Flammable gas
Fiam. Aerosol – Aerosol, flammable
Ox. Gas- Oxidizing gas
Press. Gas – Pressurized gas
Flam. Liq.- Flammable liquid
Flam. Sol.-Flammable solid
Self-react.- Self-reacting substance or mixture
Pyr. liq.- Pyrophoric liquid
Pyr. sol.- Pyrophoric solid
Self-heat – Self-heating substance or mixture
Water-react.- Substance or mixture, which in contact with water releases flammable gas
Ox. Liq.- Oxidizing liquid
Ox. Sol.-Oxidizing solid
Org. Perox.- Organic peroxide
Met. Corr.- Substance or mixture causing metal corrosion
Acute Tox.- Acute toxicity
Skin Corr.- Skin corrosion
Skin Irrit. –Skin irritation
Eye Dam.- Serious eye damage
Eye Irrit.- Eye irritation
Resp. Sens.- Respiratory sensitization
Skin Sens.- Skin sensitization
Muta. – Mutagenic effect on germ cells
Care. – Carcinogennicity
Repr. – Harmful effect on reproduction
STOT SE – Toxic effect on target organs – single exposure
STOT RE - Toxic effect on target organs – repeated exposure
Asp. Tox.- Aspiration hazard
Aquatic Acute – Hazardous for aquatic environment, acute hazard
Aquatic Chronic – Hazardous for aquatic environment cat. chronic
Ozone – Hazardous for ozone layer
Lact.- Harmful effect on reproduction, additional category, influence on lactation
NDS – Maximum permissible concentration
NDSCH – Maximum permissible instantaneous concentration
NDSP – Maximum permissible ceiling concentration
vPvB - (Substance) Very persistent and very bioaccumulative
PBT - (Substance) Persistent, bioaccumulative and toxic
PNEC - PNEC Predictable no-effect concentration
DN (M)EL – No-effect level
LD50 – A dose, which causes death of 50% of examined organism
LC50 - Concentration, which causes death 50% of examined organisms
ECX - Concentration, which causes X% growth decreasing or growth rate decreasing
LOEC – Lowest Observed Effecct Concentration
NOEL – No Observed Effect Level
RID – Regulation concerning the international carriage of dangerous goods by rail
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG - International Maritime Code for Dangerous Goods
ICAO/IATA - International Civil Aviation Organization / International Air Transport Association
ADN – European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways
UVCB - Substances with unknown or varying composition, complex reaction products or biological materials

Changes compared to the previous version:
Sections: 2.2, 6.1, 8.1, 9.1, 11.1, 13.1, 14.5, 15.1, 16 and general update.

Number of the Sheet: 061P1L2018V3