Release Agent Spray 0,75g/cm³

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Release Agent Spray 0,75g/cm³

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

Use of the substance/mixture

professional use.
Release agent. (Aerosol)

Uses advised against

not known

1.3. Details of the supplier of the safety data sheet

Company name:	Nedform BV
Street:	Hofdwarsweg 20
Place:	6161DD Geleen
Telephone:	+31 (0)464106260
e-mail:	info@nedform.com
Contact person:	R Collaris
Internet:	http://ww.nedform.com
Responsible Department:	R&D

1.4. Emergency telephone number:

0031 (0)464106260 (Mo-Do 8:00-16:00; Fr 8:00-14:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:
Aerosol: Aerosol 1
Specific target organ toxicity - single exposure: STOT SE 3
Hazardous to the aquatic environment: Aquatic Chronic 2
Hazard Statements:
Extremely flammable aerosol.
Pressurised container: May burst if heated.
May cause drowsiness or dizziness.
Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazardous components which must be listed on the label

Hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclics

Signal word: Danger

Pictograms: GHS02-GHS07-GHS09

Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurized container: May burst if heated.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

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.
P273	Avoid release to the environment.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container to in accordance with official regulations.

Special labelling of certain mixtures

EUH066	Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Aerosol

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
920-750-0	Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics,	45-<50%
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411	
01-2119473851-33-xxxx		
203-448-7	butane	30-<35%
601-004-00-0	Flam. Gas 1; H220	
200-827-9	propane	5-<10%
74-98-6	F+ - Extremely flammable R12	
601-003-00-5	Flam. Gas 1; H220	

Full text of R-, H- and EUH-phrases: see section 16.

Further Information

Note P: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS-No. 200-753-7) .
Product does not contain listed SVHC substances.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Change contaminated clothing. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Let water be swallowed in little sips (dilution effect). Do not induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps.

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

following inhalation: Headache. Dizziness. drowsiness. unconsciousness.
Repeated exposure may cause skin dryness or cracking.
Caution if victim vomits: Risk of aspiration!

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

Treat symptomatically. Subsequent observance for pneumonia and lung oedema.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide. Extinguishing powder. Dry extinguishing powder. alcohol resistant foam. In case of major fire and large quantities: Water spray.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Vapours may form explosive mixtures with air. Reignition possible at long range. Vapours are heavier than air and will spread at floor level.
Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO2).

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical resistant suit.

Additional information

Use water spray/stream to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. In case of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Guide people to safety. Remove all sources of ignition.
Ventilate affected area.
Wear personal protection equipment. (Refer to chapter 8.)
Avoid contact with skin, eye and clothing.
Do not breathe gas/fumes/vapour/spray.

6.2. Environmental precautions

Do not empty into drains or the aquatic environment. Prevent spreading over great surfaces (e.g. by damming or installing oil booms). In case of leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the assimilated material according to the section on waste disposal.
Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Personal protection equipment (refer to chapter 8)

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Keep away from sources of ignition - No smoking.
Provide adequate ventilation.

Advice on protection against fire and explosion

Take precautionary measures against static discharges. It is possible that in the head space of sealed containers, especially in the case of thermal development, vapours of solvent cleaners may accumulate. Flames and sources of ignition must be kept well away. Vapours are heavier than air and will spread at floor level. Flammable vapours can accumulate in steam space of closed systems. Vapours may form explosive mixtures with air.

Further information on handling

Do not breathe gas/vapour/spray. Avoid contact with skin, eye and clothing.
General protection and hygiene measures: refer to chapter 8

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep/Store only in original container.
storage temperature: +10°C - +30°C
Suitable material for floor covering: Solvent-proof.
Ensure adequate ventilation of the storage area.

Advice on storage compatibility

Do not store together with: Radioactive substances. Infectious substances. Organic peroxides Oxidizing solids Oxidizing liquids Pyrophoric liquids and solids. flammable substances. Substances or mixtures which, in contact with water emit flammable gases.

Further information on storage conditions

Protect against: heat. UV-radiation/sunlight.
Shelf Life (months): 12
Note: Storage requirements for flammable aerosols TRG 300

7.3. Specific end use(s)

refer to chapter 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Limit	Type
106-97-8	Butane	1000	2400		4(II)	
110-82-7	Hydrocarbon mixtures, used as solvent C7-C9 aliphatics	100	1000		2(II)	
110-54-3	Propane	1000 -	1800 -		4(II)	

8.2. Exposure controls

Appropriate engineering controls

Vapours / aerosols must be extracted by suction immediately at point of origin.

Protective and hygiene measures

Always close containers tightly after the removal of product. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and at the end of work. Remove contaminated clothing immediatley and dispose off safely. Wash contaminated clothing prior to re-use. Used working clothes should not be used outside the work area. Street clothing should be stored seperately from work clothing. Repeated exposure may cause skin dryness or cracking. Protect skin by using skin protective cream.

Eye/face protection

Tightly sealed safety glasses. DIN EN 166

Hand protection

Prolonged/repetitive skin contact may cause skin defattening or dermatitis.
Hand protection:
Tested protective gloves are to be worn:
In case of prolonged or frequently repeated skin contact:
Suitable material:
Breakthrough time > 480 min.
FKM (fluororubber). (VITOJECT® - Art. No. 890) - Thickness of glove material: 0,7 mm
NBR (Nitrile rubber). (CAMATRIL VELOURS® - Art. No. 730) - Thickness of glove material: 0,4 mm
On short hand contact:
Suitable material:
Breakthrough time > 60 min.
NBR (Nitrile rubber). (DERMATRIL® P – Art. No. 743) - Thickness of glove material: 0,2 mm
Manufacturer: Kächele-Cama Latex GmbH, Industriepark Röhn, Am Kreuzacker 9, D-36124 Eichenzell
Telefon : +49-6659-87-300, Telefax : +49-6659-87-155, Internet : http://www.kcl.de , E-Mail : vertrieb@kcl.de
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
When handling chemical substances, chemical protective gloves must be worn with CE label including a four digit code.
In case of reutilization, clean gloves before taking off and store in well-aired place.

Set out skin protection guidelines.
Before starting work, apply solvent-cleaner-proof skin protection products.: sansibal®/ sansibon®, dualin®
Wash hands before breaks and at the end of work.: ecosan®, topscrub® soft / topscrub® extra / topscrub® nature
After cleaning apply high-fat content skin care cream.: physioderm® creme, cura soft® / cUrea soft®
Manufacturer: Physioderm GmbH & Co. KG, Woellnerstrasse 26, D-67065 Ludwigshafen
Telefon : +49-621-54967-0, Telefax : +49-621-54967-58, Internet : http://www.physioderm.de
E-Mail : info@physioderm.de

Skin protection

Protective clothing. (EN 340, EN 344)

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.
Respiratory protection required in case of:
exceeding critical value
insufficient ventilation.
Suitable respiratory protective equipment: Protective respiration apparatus not using surrounding air (breathing apparatus) (DIN EN 133).
Only use breathing apparatus with CE-label including the four-digit identification number.

Environmental exposure controls

Dumping into the environment must be prevented.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	**liquid,**
Colour:	**Aerosol white**
Odour:	**characteristic**

	Test method
pH-Value:	
Changes in the physical state	N/A
Melting point:	
Initial boiling point and boiling range:	
Flash point:	not determined
	>-42 °C literature value
	-104 (propane) °C literature value

Explosive properties

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

Lower explosion limits:	1,4 (butane) vol. %
Upper explosion limits:	9,4 (butane) vol. %
Ignition temperature:	365 (butane) °C

Oxidizing properties

none/none

Vapour pressure: (at 20 °C)	2100 (butane) hPa literature value
Vapour pressure: (at 50 °C)	4900 (butane) hPa literature value
Density:	0,67 g/cm³ calc.
Water solubility:	< 0,1 g/L literature value

Solubility in other solvents

mixable with most organic solvent cleaners

Viscosity / dynamic:	not determined
Viscosity / kinematic: (at 23 °C)	not determined
Flow time: (at 23 °C)	not determined
Evaporation rate: (at 20 °C)	not determined
Solvent content:	57 %; Aerosol propellent: 43%

9.2. Other information

Solid content:	not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable under normal storage and handling conditions.

10.3. Possibility of hazardous reactions

Vapours may form explosive mixtures with air.

10.4. Conditions to avoid

Ignition hazard. Keep away from heat.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

No information available.

Acute toxicity

Based on available data, the classification criteria are not met.
The statement is derived form the properties of the components. :
Acute toxicity (oral): > 2000 mg/kg (Rat.)
Acute toxicity (dermal): > 2000 mg/kg (Rat.)
Acute toxicity (inhalant): (4h) > 20 mg/l (Rat.)

CAS No	Chemical name			
	Exposure routes	Method Dose	Species	Source
	Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane			
	oral	LD50 >2000 (Read across) mg/kg	Rat.	ECHA Dossier
	dermal	LD50 >2000(read across) mg/kg	Rabbit.	ECHA Dossier
	inhalative (4 h) vapour	LC50 > 25,2 mg/l	Rat. OECD 403	ECHA Dossier
106-97-8	butane			
	inhalative (4 h) gas	LC50 658 ppm	Rat.	GESTIS
74-98-6	propane			
	inhalative gas	LC50 800000 (15 min) ppm	Rat.	

Irritation and corrosivity

Causes skin irritation.

Sensitising effects

Based on available data, the classification criteria are not met.

STOT-single exposure

May cause drowsiness or dizziness.

Severe effects after repeated or prolonged exposure

Repeated exposure may cause skin dryness or cracking.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

Propane:
In-vitro mutagenicity: negative.

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Terrestrial toxicity: : No data available
Acute plant toxicity: No data available
Effects in sewage plants: No data available

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] | [d]	Species	Source
	Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane					
	Acute fish toxicity	LC50	11,4 mg/l	96 h	Oncorhynchus mykiss	OECD 203
	Acute algae toxicity	ErC50	30 mg/l	72 h	Pseudokirchneriella subcapitata	OECD 201
	Acute crustacea toxicity	EC50	3 mg/l	48 h	Daphnia magna	OECD 202

12.2. Persistence and degradability

Abiotic degradation: No data available
Physicochemical elimination: No data available
Photo-chemical elimination: No data available

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
	Hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclics			
		98%	28	ECHA dossier
	Easily biodegradable (concerning to the criteria of the OECD)			

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
106-97-8	butane	2,89
74-98-6	propane	2,36

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Further information

AOX (mg/l): = 0 g/L

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Moreover, national legislation has to be observed! Consult the local waste disposal expert about waste disposal. Cleaned containers may be recycled.
According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.
Control report for waste code/ waste marking according to EAKV:

Waste disposal number of contaminated packaging

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

Contaminated packaging

Handle contaminated packaging in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
14.4. Packing group:	-
Hazard label:	2.1 Aerosol classified as LQ2 (1L)

Classification code:	5F
Special Provisions:	190 327 344 625
Limited quantity:	1 L
Transport category:	2
Tunnel restriction code:	D

Other applicable information (land transport)

Excepted quantity: E0

Inland waterways transport (ADN)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS [LIMITED QUANTITY]
14.3. Transport hazard class(es):	2
14.4. Packing group:	-
Hazard label:	2.1 Aerosol classified as LQ2 (1L)

Classification code:	5F
Special Provisions:	190 327 344 625
Limited quantity:	1 L

Other applicable information (inland waterways transport)

Excepted quantity: E0

Marine transport (IMDG)

14.1. UN number:	UN 1950

14.2. UN proper shipping name: AEROSOLS [LIMITED QUANTITY)

14.3. Transport hazard class(es): 2.1

14.4. Packing group: -

Hazard label: 2.1 Aerosol classified as LQ2 (1L)

Special Provisions: 63, 190, 277, 327, 344, 959
Limited quantity: 1000 mL
EmS: F-D, S-U

Other applicable information (marine transport)

Excepted quantity: E0

Air transport (ICAO)

14.1. UN number: UN 1950

14.2. UN proper shipping name: AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es): 2.1

14.4. Packing group: -

Hazard label: 2.1 Aerosol classified as LQ2 (1L)

Special Provisions: A145 A167 A802
Limited quantity Passenger: 30 kg G
IATA-packing instructions - Passenger: 203
IATA-max. quantity - Passenger: 75 kg
IATA-packing instructions - Cargo: 203
IATA-max. quantity - Cargo: 150 kg

Other applicable information (air transport)

Excepted quantity: E0
Passenger-LQ: Y203

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no LIMITED QUANTITY

14.6. Special precautions for user

refer to chapter 6-8

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC): 100% (calculated.)
2004/42/EC (VOC): 670 g/l (calculated.)

Additional information

The preparation is dangerous in the sense of Directive 1999/45/EC.
This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].
REACH 1907/2006 Appendix XVII, No 3
Regulation 96/82/EC for danger control following severe accidents with dangerous substances: Appendix I, Part 2, No 8 (Seveso II)
Adhesives, sealants (Neoprene-Basis):
REACH 1907/2006 Appendix XVII, No. 57: > 0,1% cyclohexane + > 350 g Contaminated packaging: : For professional users only.

National regulatory information

Employment restrictions:	Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.
Water contaminating class (D):	2 - water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

Rev. 2.0 Renewed 04.02.2020

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
CAS Chemical Abstracts Service
DNEL: Derived No Effect Level
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect level
NTP: National Toxicology Program
N/A: not applicable
OSHA: Concerning the International Transport of Dangerous Goods by Rail)
PNEC: predicted no effect concentration
PBT: Persistent bioaccumulative toxic
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
SARA: Superfund Amendments and Reauthorization Act
SVHC: substance of very high concern
TRGS Technische Regeln für Gefahrstoffe
TSCA: Toxic Substances Control Act
VOC: Volatile Organic Compounds
VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe
WGK: Wassergefährdungsklasse

Relevant H- and EUH-phrases (Number and full text)

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)