



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

1.1 Product identifier

Seal-Ex - Sealant remover
Article number: 2896663
UFI: GPA7-WWDN-K107-7SD9

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

1.2.1 Relevant uses

Cleaning agent

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

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1.4 Emergency telephone number

Advisory body +49 (0)89-19240 (24h) (English)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

Aerosol 1: H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated.
Eye Dam. 1: H318 Causes serious eye damage.

2.2 Label elements

The determination of properties hazardous to health does not take the propellant or carrier material into account.
The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

Hazard pictograms



Signal word

DANGER

Contains:

1,3-Dioxolan

Hazard statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H318 Causes serious eye damage.

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.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122°F.
P260 Do not breathe vapours / spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear eye protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor.
P501 Dispose of contents/container in accordance with local/national regulation.

Cleaner, 648/2004/CE, contains:

>30% aliphatic hydrocarbons

2.3 Other hazards

Human health dangers

Frequent persistent contact with the skin can cause skin irritation.

Environmental hazards

Does not contain any PBT or vPvB substances.
Contains no ingredients with endocrine-disrupting properties.

Other hazards

Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
20 - <50	1,3-Dioxolan
	CAS: 646-06-0, EINECS/ELINCS: 211-463-5, EU-INDEX: 605-017-00-2, Reg-No.: 01-2119490744-29-XXXX
	GHS/CLP: Flam. Liq. 2: H225 - Eye Dam. 1: H318
20 - <30	Butane
	CAS: 106-97-8, EINECS/ELINCS: 203-448-7, EU-INDEX: 601-004-00-0, Reg-No.: 01-2119474691-32-XXXX
	GHS/CLP: Flam. Gas 1: H220 - Press. Gas: H280
10 - 25	Dimethoxymethane
	CAS: 109-87-5, EINECS/ELINCS: 203-714-2, Reg-No.: 01-2119664781-31-XXXX
	GHS/CLP: Flam. Liq. 2: H225
10 - 25	Propane
	CAS: 74-98-6, EINECS/ELINCS: 200-827-9, EU-INDEX: 601-003-00-5, Reg-No.: 01-2119486944-21-XXXX
	GHS/CLP: Flam. Gas 1: H220 - Press. Gas: H280
1 - < 10	Hydrocarbons, C11-C13, isoalkanes, <2% aromatics
	EINECS/ELINCS: 920-901-0, Reg-No.: 01-2119456810-40-XXXX
	GHS/CLP: Asp. Tox. 1: H304 - EUH066
1 - <5	iso-Butane
	CAS: 75-28-5, EINECS/ELINCS: 200-857-2, EU-INDEX: 601-004-00-0, Reg-No.: 01-2119485395-27-XXXX
	GHS/CLP: Flam. Gas 1: H220 - Press. Gas: H280

Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Change soaked clothing.

Inhalation

Ensure supply of fresh air.
In the event of symptoms seek medical treatment.

Skin contact

In case of contact with skin wash off immediately with soap and water.
Consult a doctor if skin irritation persists.

Eye contact

Consult a doctor immediately.
Keep eyelid open. Rinse thoroughly and immediately with plenty of water.

Ingestion

Do not induce vomiting.
Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide.
Water spray jet.
Dry powder.
Foam.

Extinguishing media that must not be used

Full water jet.

5.2 Special hazards arising from the substance or mixture

risk of formation of toxic pyrolysis products, carbon monoxide (CO), not combusted hydrocarbons

Bursting aerosols can be forcibly projected from a fire.

5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

Cool containers at risk with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from all sources of ignition.

Use personal protective equipment (protective gloves, safety glasses, protective clothing).

Ensure adequate ventilation.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth).

Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use solvent-resistant equipment.

Use only in well-ventilated areas.

Vapours can form an explosive mixture with air.

Keep away from all sources of ignition - Refrain from smoking.

Do not eat, drink, smoke or take drugs at work.

Wash hands before breaks and after work.

Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Do not store together with oxidizing agents.

Keep in a cool place, heat causes increase in pressure and risk of bursting.

Protect from heat/overheating.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection
8.1 Control parameters
Ingredients with occupational exposure limits to be monitored (GB)

Substance
Butane
CAS: 106-97-8, EINECS/ELINCS: 203-448-7, EU-INDEX: 601-004-00-0, Reg-No.: 01-2119474691-32-XXXX
Long-term exposure: 600 ppm, 1450 mg/m ³
Short-term exposure (15-minute): 750 ppm, 1810 mg/m ³
iso-Butane
CAS: 75-28-5, EINECS/ELINCS: 200-857-2, EU-INDEX: 601-004-00-0, Reg-No.: 01-2119485395-27-XXXX
Long-term exposure: 600 ppm, 1450 mg/m ³ , (Butane)
Short-term exposure (15-minute): 750 ppm, 1810 mg/m ³
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics
EINECS/ELINCS: 920-901-0, Reg-No.: 01-2119456810-40-XXXX
Long-term exposure: 1200 mg/m ³ , RCP-TWA, 171 ppm (Manufacturer)
Dimethoxymethane
CAS: 109-87-5, EINECS/ELINCS: 203-714-2, Reg-No.: 01-2119664781-31-XXXX
Long-term exposure: 1000 ppm, 3160 mg/m ³
Short-term exposure (15-minute): 1250 ppm, 3950 mg/m ³
Paraffin waxes and Hydrocarbon waxes
CAS: 8002-74-2, EINECS/ELINCS: 232-315-6
Long-term exposure: 2 mg/m ³
Short-term exposure (15-minute): 6 mg/m ³

DNEL

Substance
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics
There are no DNEL values established for the substance.
1,3-Dioxolan, CAS: 646-06-0
Industrial, dermal, Long-term - systemic effects, 1,18 mg/kg bw/day
Industrial, inhalative, Long-term - systemic effects, 3,306 mg/m ³
general population, oral, Long-term - systemic effects, 1,31 mg/kg bw/day
general population, dermal, Long-term - systemic effects, 1,31 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 4,52 mg/m ³
Dimethoxymethane, CAS: 109-87-5
Industrial, dermal, Long-term - systemic effects, 17,9 mg/kg bw/day
Industrial, inhalative (vapor), Long-term - systemic effects, 126,6 mg/m ³
general population, oral, Long-term - systemic effects, 18,1 mg/kg bw/day
general population, dermal, Long-term - systemic effects, 18,1 mg/kg bw/day
general population, inhalative (vapor), Long-term - systemic effects, 31,5 mg/m ³

PNEC

Substance
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics
There are no PNEC values established for the substance.
1,3-Dioxolan, CAS: 646-06-0
soil, 2,62 mg/kg

sediment (seawater), 7,77 mg/kg
sediment (freshwater), 77,7 mg/kg
sewage treatment plants (STP), 1 mg/L
seawater, 1,97 mg/L
freshwater, 19,7 mg/L
Dimethoxymethane, CAS: 109-87-5
soil, 4,654 mg/kg
sediment (seawater), 1,313 mg/kg
sediment (freshwater), 13,135 mg/kg
sewage treatment plants (STP), 10 g/L
seawater, 1,477 mg/L
freshwater, 14,577 mg/L

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	Tightly fitting goggles. (EN 166:2001)
Hand protection	In full contact: 0,4 mm Nitrile rubber, >480 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
Skin protection	Not required under normal conditions.
Other	Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, combination filter A-P2. (DIN EN 14387)
Thermal hazards	No information available.
Delimitation and monitoring of the environmental exposition	not determined

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	aerosol
Color	whitish
Odor	characteristic
Odour threshold	not applicable
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not applicable
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	2,2 Vol.%
Upper explosion limit	30,5 Vol.%
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	350
Density [g/cm ³]	0,75
Relative density	not determined
Bulk density [kg/m ³]	not applicable
Solubility in water	partially soluble
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	not determined
Kinematic viscosity	not applicable
Relative vapour density	not applicable
Evaporation speed	not applicable
Melting point [°C]	not applicable
Auto-ignition temperature	>200
Decomposition temperature [°C]	not applicable
Particle characteristics	No information available.

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Because of the high vapour pressure, containers are liable to burst if temperature rises.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

Strong oxidizing agent.



10.6 Hazardous decomposition products

Flammable gases/vapours.

SECTION 11: Toxicological information
11.1 Information on toxicological effects
Acute oral toxicity

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

Substance
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics
LD50, oral, Rat, 5000 - 15000 mg/kg bw
1,3-Dioxolan, CAS: 646-06-0
LD50, oral, Rat, >2000 mg/kg bw
Dimethoxymethane, CAS: 109-87-5
LD50, oral, Rat, 6653 mg/kg bw (RTECS)

Acute dermal toxicity

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

Substance
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics
LD50, dermal, Rabbit, 2200 - 2500 mg/kg bw
1,3-Dioxolan, CAS: 646-06-0
LD50, dermal, Rabbit, 15000 mg/kg bw
Dimethoxymethane, CAS: 109-87-5
LD50, dermal, > 5000 mg/kg

Acute inhalational toxicity

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

Substance
Butane, CAS: 106-97-8
LC50, inhalative, Rat, 658 mg/L (IUCLID)
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics
LC50, inhalative, Rat, 4.951 - 9.3 mg/L air, 4h
Propane, CAS: 74-98-6
LC50, inhalative, Rat, > 1443 mg/l (15 min) (Lit.)
1,3-Dioxolan, CAS: 646-06-0
LC50, inhalative, Rat, 68,4 mg/L (4h)
Dimethoxymethane, CAS: 109-87-5
LC50, inhalative, > 15000 mg/m ³
LC50, inhalative, Rat, 47,47 mg/l (RTECS)

Serious eye damage/irritation

Risk of serious damage to eyes.

Skin corrosion/irritation

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

Respiratory or skin sensitisation

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

Specific target organ toxicity — single exposure

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

Specific target organ toxicity — repeated exposure

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

Substance
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics
NOAEL, oral, Rat, 1000 mg/kg bw/day
NOAEC, inhalative, Rat, 10.4 mg/L air
Propane, CAS: 74-98-6
NOAEC, inhalative, Rat, 4437 mg/m ³
1,3-Dioxolan, CAS: 646-06-0

NOAEL, oral, Rat, 75 mg/kg bw/day

NOAEC, inhalative, Rat, 298 ppm

Mutagenicity	Does not contain a relevant substance that meets the classification criteria.
Reproduction toxicity	Does not contain a relevant substance that meets the classification criteria.
Carcinogenicity	Does not contain a relevant substance that meets the classification criteria.
Aspiration hazard	Based on available data, the classification criteria are not met.
General remarks	

Toxicological data of complete product are not available.

SECTION 12: Ecological information**12.1 Toxicity**

Substance
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics
EL50, (72h), Algae, 1 mg/L
NOELR, (21d), Invertebrates, 1 mg/L
NOELR, (28d), fish, 217 µg/L
LL50, (96h), fish, 1 g/L
LL0, (96h), Invertebrates, 1 g/L
1,3-Dioxolan, CAS: 646-06-0
LC50, (96h), fish, 95,4 mg/L
EC50, (72h), Algae, 877 mg/L
EC50, (48h), Daphnia magna, >772 mg/L
Dimethoxymethane, CAS: 109-87-5
LC50, (96h), Pimephales promelas, 6990 mg/l (ECOTOX)
EC50, (48h), Daphnia magna, > 500 mg/l (Lit.)
IC10, (72h), Desmodemus subspicatus, > 500 mg/l (Lit.)

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	Contains no organic complexing agents. AOX-advice: No dangerous components.
Biological degradability	not determined

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

12.7 Other adverse effects

Ecological data of complete product are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Dispose of as hazardous waste.

Waste no. (recommended)

160504* gases in pressure containers (including halons) containing dangerous substances

Contaminated packaging

Uncontaminated packaging may be taken for recycling.

Waste no. (recommended)

150110* packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

14.1 UN number or ID number


Transport by land according to ADR/RID 1950


Inland navigation (ADN) 1950


Marine transport in accordance with IMDG 1950


Air transport in accordance with IATA 1950

14.2 UN proper shipping name

Transport by land according to ADR/RID	Aerosols
- Classification Code	5F
- Label	
- ADR LQ	1 I
- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 2 (D)

Inland navigation (ADN)	Aerosols
- Classification Code	5F
- Label	

Marine transport in accordance with IMDG	Aerosols
- EMS	F-D, S-U
- Label	
- IMDG LQ	1 I

Air transport in accordance with IATA	Aerosols, flammable
- Label	

14.3 Transport hazard class(es)

Transport by land according to ADR/RID	2
Inland navigation (ADN)	2
Marine transport in accordance with IMDG	2.1
Air transport in accordance with IATA	2.1

14.4 Packing group

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

EEC-REGULATIONS	2008/98/EC 2000/532/EC; 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	ADR (2021); IMDG-Code (2021, 40. Amdt.); IATA-DGR (2021)
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011).
- Observe employment restrictions for people	Observe employment restrictions for young people.
- VOC (2010/75/CE)	95,987 %

15.2 Chemical safety assessment

No information available.

SECTION 16: Other information**16.1 Hazard statements (SECTION 3)**

EUH066 Repeated exposure may cause skin dryness or cracking.
 H304 May be fatal if swallowed and enters airways.
 H280 Contains gas under pressure; may explode if heated.
 H220 Extremely flammable gas.
 H318 Causes serious eye damage.
 H225 Highly flammable liquid and vapour.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 ATE = acute toxicity estimate
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging
 DMEL = Derived Minimum Effect Level
 DNEL = Derived No Effect Level
 EC50 = Median effective concentration
 ECB = European Chemicals Bureau
 EEC = European Economic Community
 EINECS = European Inventory of Existing Commercial Chemical Substances
 EL50 = Median effective loading
 ELINCS = European List of Notified Chemical Substances
 EmS = Emergency Schedules
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IC50 = Inhibition concentration, 50%
 IMDG = International Maritime Code for Dangerous Goods
 IUCLID = International Uniform Chemical Information Database
 IVIS = In vitro irritation score
 LC50 = Lethal concentration, 50%
 LD50 = Median lethal dose
 LC0 = lethal concentration, 0%
 LOAEL = lowest-observed-adverse-effect level
 LL50 = Median lethal loading
 LQ = Limited Quantities
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 NOAEL = No Observed Adverse Effect Level
 NOEC = No Observed Effect Concentration
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 STP = Sewage Treatment Plant
 TLV@TWA = Threshold limit value – time-weighted average
 TLV@STEL = Threshold limit value – short-time exposure limit
 VOC = Volatile Organic Compounds
 vPvB = very Persistent and very Bioaccumulative

16.3 Other information**Classification procedure**

Aerosol 1: H222 Extremely flammable aerosol. (Bridging principle "Aerosols") H229
 Pressurised container: May burst if heated. (Bridging principle "Aerosols")
 Eye Dam. 1: H318 Causes serious eye damage. (Calculation method)

Modified position

SECTION 2 been added: 1,3-Dioxolan
 SECTION 2 been added: P310 Immediately call a POISON CENTER / doctor.
 SECTION 2 been added: H318 Causes serious eye damage.
 SECTION 2 been added: corrosion
 SECTION 2 been added: Eye Dam. 1
 SECTION 2 deleted: Eye Irrit. 2
 SECTION 2 deleted: H319 Causes serious eye irritation.
 SECTION 2 deleted: exclamation mark
 SECTION 2 been added: Contains no ingredients with endocrine-disrupting properties.
 SECTION 4 been added: Keep eyelid open. Rinse thoroughly and immediately with plenty of water.
 SECTION 4 been added: Consult a doctor immediately.
 SECTION 8 been added: Tightly fitting goggles. (EN 166:2001)
 SECTION 11 been added: Risk of serious damage to eyes.
 SECTION 12 been added: Contains no ingredients with endocrine-disrupting properties.

Safety Data Sheet REACH(UK) (GB)

Seal-Ex - Sealant remover

Article number 2896663

Normfest GmbH

42551 Velbert



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