



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008
This SDS is for generic information purposes and does not reflect required country specific information for OEL

OPN-Universal Adhesive Grease
Supercedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02

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

1.1. Product identifier

Product Name OPN-Universal Adhesive Grease
Article number 61300
Unique formula identifier (UFI) 4WRF-A5JV-W00E-2JGE

Other means of identification

Pure substance/mixture Mixture

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

Recommended use Lubricant
Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

OPN-CHEMIE GmbH
In der Au 14
57290 Neunkirchen / Germany
www.opn-chemie.de

Further information obtainable from

Barbara Angelika Gros-Petri
E-Mail (competent person) baerbel.petri@opn-chemie.de

1.4. Emergency telephone number

Emergency information service Poison Information Center Freiburg +49(0)761/19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Aerosols	Category 1 - (H222, H229)
Skin irritation	Category 2 - (H315)
Specific target organ toxicity (single exposure)	Category 3 - (H336)
Category 3 Target organ effects: Narcotic effects.	
Aspiration hazard	Category 1 - (H304)
Hazardous to the aquatic environment - chronic	Category 2 - (H411)

2.2. Label elements

Hazardous ingredients for labelling

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

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
Supersedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02



Signal word
Danger

Hazard statements

H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.
H315 - Causes skin irritation.
H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary Statements - EU (§28, 1272/2008)

P101 - If medical advice is needed, have product container or label at hand.
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.
P261 - Avoid breathing vapours/spray.
P264 - Wash hands and face thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, eye protection and face protection.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P312 - Call a POISON CENTER / doctor if you feel unwell.
P391 - Collect spillage.
P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P501 - Dispose of contents / container in accordance with national regulations of the disposal.

EU Specific Hazard Statements

EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
EUH208 - Contains Benzenesulfonic acid, di-C10-18-alkyl derivs., calcium salts. May produce an allergic reaction.

Additional labelling requirements

Buildup of explosive mixtures possible without sufficient ventilation.

Additional information

This product is exempt from the requirement for a child resistant fastening and tactile warning of danger, as it is an aspiration hazard, placed on the market in the form of an aerosol or in a container with a sealed spray attachment.

2.3. Other hazards

In case of insufficient ventilation and/or through use, the formation of a explosive/highly flammable mixture is possible.

PBT & vPvB

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

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
Supersedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics RR-100219-3	>25 - <40	01-2119475515-33-xxxx	927-510-4	STOT SE 3 (H336) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Aquatic Chronic 2 (H411) Flam. Liq. 2 (H225)	-	-	-	-
Butane 106-97-8	10 - <20	01-2119474691-32-XXXX	203-448-7 (601-004-00-0)	Flam. Gas 1 (H220) Press. Gas (H280)	-	-	-	C,U
Isobutane 75-28-5	5 - <10	01-2119485395-27-XXXX	200-857-2 (601-004-00-0)	Flam. Gas 1 (H220) Press. Gas (H280)	-	-	-	C,U
Titanium dioxide 13463-67-7	1 - <3	01-2119489379-17-XXXX	236-675-5 (022-006-00-2)	[C]	-	-	-	V,W,10
Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts 1471316-72-9	0.1 - <0.3	01-2119978241-36-xxxx	939-603-7	Skin Sens. 1B (H317)	-	-	-	-
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentane 68411-46-1	0.1 - <0.3	No data available	270-128-1	Repr. 2 (H361)	-	-	-	-

Substances identified by a number starting "RR-" in the CAS-field are substances for which the CAS# is not adopted in EU and we use an internal numbering system to track within our SDS software

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

[C] - Components with occupational exposure limits and/or biological occupational exposure limits requiring monitoring

Note C - Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note U - When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case. The following codes are assigned: Press. Gas (Comp.), Press. Gas (Liq.), Press. Gas (Ref. Liq.), Press. Gas (Diss.). Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2).

Note V - If the substance is to be placed on the market as fibres (with diameter < 3 µm, length > 5 µm and aspect ratio ≥ 3:1) or particles of the substance fulfilling the WHO fibre criteria or as particles with modified surface chemistry, their hazardous properties must be evaluated in accordance with Title II of this Regulation, to assess whether a higher category (Carc. 1B or 1A) and/or additional routes of exposure (oral or dermal) should be applied.

Note W - It has been observed that the carcinogenic hazard of this substance arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung. This note aims to describe the particular toxicity of the substance; it does not constitute a criterion for classification according to this Regulation.

Note 10 - The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.

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

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATE_{mix}) for classifying a mixture based on its components

Chemical name	EC No (EU Index No)	CAS No.	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour dust/mist - mg/L	Inhalation LC50 - 4 hour vapour - mg/L	Inhalation LC50 - 4 hour gas - ppm

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
Supersedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02

Chemical name			Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour dust/mist - mg/L	Inhalation LC50 - 4 hour vapour - mg/L	Inhalation LC50 - 4 hour gas - ppm
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	927-510-4	RR-100219-3	-	-	-	-	-
Butane	203-448-7 (601-004-00-0)	106-97-8	-	-	-	-	-
Isobutane	200-857-2 (601-004-00-0)	75-28-5	-	-	-	-	-
Titanium dioxide	236-675-5 (022-006-00-2)	13463-67-7	-	-	-	-	-
Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts	939-603-7	1471316-72-9	-	-	-	-	-
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	270-128-1	68411-46-1	-	-	-	-	-

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical attention.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

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

Symptoms	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and
-----------------	--

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
Supersedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02

vomiting.

Effects of Exposure No information available.

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

Note to doctors Because of the danger of aspiration, emesis or gastric lavage should not be used unless the risk is justified by the presence of additional toxic substances.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO₂). Water spray.

Unsuitable extinguishing media Full water jet. DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers may explode when heated.

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO₂). Sulphur oxides.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. Avoid breathing dust/fume/gas/mist/vapours/spray.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Flood with water to complete polymerization and scrape off floor.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
Supersedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Use personal protection equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use spark-proof tools and explosion-proof equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Keep in an area equipped with sprinklers. Do not puncture or incinerate cans. Contents under pressure. In case of rupture. Avoid breathing vapours or mists. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Protect from sunlight. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other chemicals. Store locked up. Keep out of the reach of children. Store away from other materials. Keep/store only in original container. Store in a dry place. Store in a closed container.

7.3. Specific end use(s)

Specific use(s)
lubricant.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Other information Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits This product contains titanium dioxide in a non-respirable form. Inhalation of titanium dioxide is unlikely to occur from exposure to this product

Only European Community Occupational Exposure Limits will be shown in this document. Please refer to regional SDS for further information.

Derived No Effect Level (DNEL) No information available

Derived No Effect Level (DNEL)

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
 Supersedes date 22.08.2025

Revision date 22.08.2025
 Revision Number 1.02

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics (RR-100219-3)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	2085 mg/m ³	
worker Long term Systemic health effects	Dermal	300 mg/kg bw/d	

Titanium dioxide (13463-67-7)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Local health effects	Inhalation	10 mg/m ³	

Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts (1471316-72-9)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	35.26 mg/m ³	
worker Long term Systemic health effects	Dermal	25 mg/kg bw/d	
worker Short term Systemic health effects	Dermal	1.04 mg/m ³	

Derived No Effect Level (DNEL)			
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics (RR-100219-3)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Inhalation	447 mg/m ³	
Consumer Long term Systemic health effects	Dermal	149 mg/kg bw/d	
Consumer Long term Systemic health effects	Oral	149 mg/kg bw/d	

Titanium dioxide (13463-67-7)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Oral	700 mg/kg bw/d	

Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts (1471316-72-9)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Inhalation	8.7 mg/m ³	
Consumer Long term	Dermal	12.5 mg/kg bw/d	

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
Supersedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02

Systemic health effects			
Consumer Short term Systemic health effects	Dermal	0.518 mg/m ³	
Consumer Long term Systemic health effects	Oral	2.5 mg/kg bw/d	

Predicted No Effect Concentration (PNEC) No information available.

Predicted No Effect Concentration (PNEC)	
Titanium dioxide (13463-67-7)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Marine water	0.0184 mg/l
Freshwater sediment	1000 mg/kg
Freshwater	0.184 mg/l
Marine sediment	100 mg/kg
Soil	100 mg/kg
Microorganisms in sewage treatment	100 mg/l
Freshwater - intermittent	0.193 mg/l

Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts (1471316-72-9)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.1 mg/l
Marine water	0.1 mg/l
Sewage treatment plant	1000 mg/l
Freshwater sediment	45211 mg/kg dry weight
Marine sediment	45211 mg/kg dry weight
Soil	36739.34 mg/kg dry weight

8.2. Exposure controls

Engineering controls Ensure adequate ventilation, especially in confined areas. Vapours/aerosols must be exhausted directly at the point of origin.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.

Hand protection Wear suitable gloves. Glove thickness > 0.7mm. Butyl rubber. Nitrile rubber. The breakthrough time for the mentioned glove material is in general greater than 480 min. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374

Skin and body protection Wear appropriate personal protective clothing to prevent skin contact.

Respiratory protection Ensure adequate respiratory protection during spray applications. In case of insufficient ventilation, wear suitable respiratory equipment.

Recommended filter type: Organic gases and vapours filter conforming to EN 14387. Wear a respirator conforming to EN 140 with Type A filter or better.

Environmental exposure controls Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid
Appearance Aerosol
Colour White
Odour Solvent.

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
Supersedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	.	Not applicable, Aerosol
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	Not applicable, Aerosol
Autoignition temperature	>200 °C	None known
Decomposition temperature		None known
pH	No data available	Not applicable. Insoluble in water.
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	
Water solubility	Insoluble in water.	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Density	0.65 - 0.75 g/cm ³	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

Solid content (%) 0
VOC content approx 503.4 g/L

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.
Sensitivity to static discharge Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Heating causes rise in pressure with risk of bursting.

10.4. Conditions to avoid

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
Supersedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02

Conditions to avoid Heat, flames and sparks. Keep away from open flames, hot surfaces and sources of ignition. Extremes of temperature and direct sunlight.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidising agents. Incompatible with oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None under normal use conditions. Stable under recommended storage conditions.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation	Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract. May cause drowsiness or dizziness.
Eye contact	Specific test data for the substance or mixture is not available. May cause irritation.
Skin contact	Repeated exposure may cause skin dryness or cracking. Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Redness. May cause redness and tearing of the eyes. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Acute toxicity

Numerical measures of toxicity

The following ATE values have been calculated for the mixture

ATEmix (oral)	>2000 mg/kg
ATEmix (dermal)	>2000 mg/kg
ATEmix (inhalation-gas)	>20000 ppm
ATEmix (inhalation-dust/mist)	>5 mg/l
ATEmix (inhalation-vapour)	>20 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	LD50 >5840 mg/kg Rat	LD50 >2920 mg/kg (Rattus)	LC50 >23.3 mg/L (4h)(Rat, vapour) (OECD 403)
Butane	-	-	=658 g/m ³ (Rattus) 4 h
Isobutane	-	-	=658 mg/L (Rattus) 4 h

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
Supersedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02

Titanium dioxide	>10000 mg/kg (Rattus)	LD50 > 5000 mg/Kg	= 5.09 mg/L (Rattus) 4 h
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes skin irritation.

Titanium dioxide (13463-67-7)					
Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 404: Acute Dermal Irritation/Corrosion	Rabbit	Dermal			Non-irritant

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Titanium dioxide (13463-67-7)					
Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	Eye			Non-irritant

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

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

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

Chemical name	European Union
Titanium dioxide	Carc. 2

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

STOT - single exposure May cause drowsiness or dizziness.

STOT - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard May be fatal if swallowed and enters airways.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

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

11.2.2. Other information

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
Supersedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea	M-Factor	M-Factor (long-term)
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics RR-100219-3	ErL50 (72h) = 10-30 mg/L (Pseudokirchneriella subcapitata)	LL50 (96h) >13.4 mg/L (Oncorhynchus mykiss) OECD 203	-	EL50 (48h) = 3.0 mg/L (Daphnia magna)		
Titanium dioxide 13463-67-7	LC50 (96h) >10000 mg/l (Cyprinodon variegatus) OECD 203	-	-	-		
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	-	LC50: >100mg/L (96h, Danio rerio)	-	-		

12.2. Persistence and degradability

Persistence and degradability No information available.

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics (RR-100219-3)			
Method	Exposure time	Value	Results
OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F)	28 days	98%	Readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Butane	2.31
Isobutane	2.8

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment Based on available data, the classification criteria are not met.

Chemical name	PBT and vPvB assessment
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Not PBT/vPvB
Butane	Not PBT/vPvB
Isobutane	Not PBT/vPvB
Titanium dioxide	Not PBT/vPvB
Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts	Not PBT/vPvB
Benzenamine, N-phenyl-, reaction products with	Not PBT/vPvB

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
Supersedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02

2,4,4-trimethylpentene

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

Other adverse effects No information available.
PMT or vPvM properties Based on available data, the classification criteria are not met.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

European Waste Catalogue 16 05 04* gases in pressure containers (including halons) containing dangerous substances
15 01 04 metallic packaging

Other information Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1 UN number or ID number UN1950
14.2 UN proper shipping name Aerosols
14.3 Transport hazard class(es) 2
Labels 2.1
14.4 Packing group Not regulated
Description UN1950, Aerosols, 2, (D), Environmentally Hazardous
14.5 Environmental hazards Yes
14.6 Special precautions for user
Special Provisions 190, 327, 344, 625
Classification code 5F
Tunnel restriction code (D)
Limited quantity (LQ) 1 L

IMDG

14.1 UN number or ID number UN1950
14.2 UN proper shipping name Aerosols
14.3 Transport hazard class(es) 2.1
14.4 Packing group Not regulated
Description UN1950, Aerosols, 2.1, Marine pollutant
14.5 Marine pollutant P
14.6 Special precautions for user
Special Provisions 63,190, 277, 327, 344, 381, 959
Limited Quantity (LQ) See SP277
EmS-No. F-D, S-U
14.7 Maritime transport in bulk according to IMO instruments

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
Supersedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02

Transport in bulk according to Annex II of MARPOL and the IBC Code Not applicable

Air transport (ICAO-TI / IATA-DGR)

14.1 UN number or ID number	UN1950
14.2 UN proper shipping name	Aerosols, flammable
14.3 Transport hazard class(es)	2.1
14.4 Packing group	Not regulated
Description	UN1950, Aerosols, flammable, 2.1
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	A145, A167, A802
Limited quantity (LQ)	30 kg G
ERG Code	10L

SECTION 15: Regulatory information

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

European Union

Check whether measures in accordance with Directive 94/33/EC for the protection of young people at work must be taken.

Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

SVHC: Substances of Very High Concern for Authorisation:

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Substance subject to authorisation per REACH Annex XIV

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Export Notification requirements

This product does not contain substances which are regulated pursuant to Regulation (EC) No. 649/2012 of the European parliament and of the council concerning the export and import of dangerous chemicals above the level that triggers a labeling obligation under Regulation (EC) No 1272/2008. Therefore this product is not subject to prior informed consent notification.

Dangerous substance category per Seveso Directive (2012/18/EU)

P3a - FLAMMABLE AEROSOLS

Ozone-depleting substances (ODS) regulation (EC) 2024/590

Not applicable

Persistent Organic Pollutants

Not applicable

REGULATION (EU) 2019/1148 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on the marketing and use of explosives precursors

Not applicable

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
Supersedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
Butane 106-97-8	RG 84
Isobutane 75-28-5	RG 84

Germany

Ordinance on Industrial Safety and Health - Germany - BetrSichV

No flammable liquids in accordance with BetrSichV

Water hazard class (WGK) obviously hazardous to water (WGK 2)

TRGS - 510 Storage Class Storage Class 2B : Aerosols

Netherlands

List of Carcinogenic, mutagenic and reproductive toxin substances in accordance with Inspectorate SZW (Netherlands)

Not Listed

Denmark

Registration number(s) (P-no.) No information available

Young people under the age of 18 may not professionally use or be exposed to the product. However, young people over the age of 15 are exempt from this rule if the product is included as a necessary part of an education

Norway

Registration number(s) (PRN-no.) No information available

15.2. Chemical safety assessment

Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at >10 tpa. No Chemical Safety Assessment has been carried out for this mixture.

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of any hazard and/or precautionary statements referred to under Sections 2-15

H220 - Extremely flammable gas
H225 - Highly flammable liquid and vapour
H280 - Contains gas under pressure; may explode if heated
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H336 - May cause drowsiness or dizziness
H361 - Suspected of damaging fertility or the unborn child
H411 - Toxic to aquatic life with long lasting effects

Notes relating to the identification, classification and labelling of substances

Note C - Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers
Note U - When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case. The following codes are assigned: Press. Gas (Comp.), Press. Gas

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
Supersedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02

(Liq.), Press. Gas (Ref. Liq.), Press. Gas (Diss.). Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2)

Note V - If the substance is to be placed on the market as fibres (with diameter < 3 µm, length > 5 µm and aspect ratio ≥ 3:1) or particles of the substance fulfilling the WHO fibre criteria or as particles with modified surface chemistry, their hazardous properties must be evaluated in accordance with Title II of this Regulation, to assess whether a higher category (Carc. 1B or 1A) and/or additional routes of exposure (oral or dermal) should be applied

Note W - It has been observed that the carcinogenic hazard of this substance arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung. This note aims to describe the particular toxicity of the substance; it does not constitute a criterion for classification according to this Regulation

Notes relating to the classification and labelling of mixtures

Note 10 - The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm

SVHC: Substances of Very High Concern for Authorisation:

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances

vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

STOT RE: Specific target organ toxicity - Repeated exposure

STOT SE: Specific target organ toxicity - Single exposure

EWC: European Waste Catalogue

LOW: List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IATA: International Air Transport Association

ICAO: ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air

IMDG: International Maritime Dangerous Goods

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

Legend SECTION 8: Exposure controls/personal protection

TWA TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

AGW Occupational exposure limit value

BGW

Biological limit value

Ceiling Maximum limit value

SK*

Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Chronic aquatic toxicity	Calculation method
Acute aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method
Flammable aerosol	On basis of test data

Key literature references and sources for data used to compile the SDS

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)

European Chemicals Agency (ECHA) (ECHA_API)

Environmental Protection Agency

Acute Exposure Guideline Level(s) (AEGl(s))

SAFETY DATA SHEET

OPN-Universal Adhesive Grease
Supersedes date 22.08.2025

Revision date 22.08.2025
Revision Number 1.02

International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
NIOSH (National Institute for Occupational Safety and Health)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set

Prepared By Product Safety & Regulatory Affairs

Revision date 22.08.2025

Revision Note SDS sections updated 2

Training Advice No information available

Further information No information available

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and Regulation (EC) No. 1272/2008

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet