

ClearoPAG Power Adhesive Spray

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

1.1 Product identifier

Product name: ClearoPAG Power Adhesive Spray

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

Relevant identified uses: Lubricant

1.3 Details of the supplier of the safety data sheet

ClearoPAG GmbH
Südstraße 6
D-33829 Borgholzhausen
Phone: +49 (0)5425-5035-36
Fax: +49 (0)5425-7133

Responsible Department: Sales department, Hr. Störmer
E-Mail: info@clearopag.de

1.4 Emergency telephone number

Public emergency number

SECTION 2: Hazard identifications

2.1 Classification of the substance or mixture

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

Classified as hazardous according to regulation (EC) No. 1272/2008.

Class	Category	Hazard statement code(s)
Aerosol	Category 1	H222: Extremely flammable aerosol H229: Pressurised container: May burst if heated
Asp. Tox.	Category 1	H304: May be fatal if swallowed and enters airways
Skin Irrit.	Category 2	H315: Causes skin irritation
Eye Irrit.	Category 2	H319: Causes serious eye irritation
Skin Sens.	Category 1	H317: May cause an allergic skin reaction
STOT SE	Category 3	H336: May cause drowsiness or dizziness
Aquatic Chronic	Category 3	H412: Harmful to aquatic life with long lasting effects

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008

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Pictograms

Signal word DANGER

Hazard components which must be listed on the label:

Rosin
Isohexane, < 5 % n-hexane
Acetone
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

H-statements

H222 Extremely flammable aerosol
H229 Pressurised container: May burst if heated
H315 Causes skin irritation
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation
H336 May cause drowsiness or dizziness
H412 Harmful to aquatic life with long lasting effects

P-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
P271 Use only outdoors or in a well-ventilated area
P280 Wear protective gloves/protective clothing/eye protection/face protection
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

CAS No. EG No. REACH No.	Name GHS Classification	Concentration
115-10-6	Dimethyl ether	60 - < 65 %
204-065-8	Flam. Gas 1, H220; Liq. Gas, H280	
01-2119472128-37		
8050-09-7	Rosin	5 - < 10 %
232-475-7	Skin Sens. 1, H317	
01-2119480418-32		
107-83-5	Isohexane, < 5 % n-hexane	5 - < 10 %
931-254-9	Flam. Liq. 2, H225; Skin Irrit. 2, H315; Asp. Tox. 1, H304; STOT SE 3, H336; Aquatic	

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	Chronic 2, H411	
01-2119484651-34		
67-64-1	Acetone	5 - < 10 %
200-662-2	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336; EUH066	
01-2119471330-49		
-	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	5 - < 10 %
927-510-4	Flam. Liq.2, H225; Skin Irrit. 2, H315; Asp. Tox. 1, H304; STOT SE 3, H336; Aquatic Chronic 2, H411	
01-2119475515-33		
110-82-7	Cyclohexane	0.1 - < 0.5 %
203-806-2	Flam. Liq.2, H225; Skin Irrit. 2, H315; Asp. Tox. 1, H304; STOT SE 3, H336; Aquatic Acute 1 (M = 1), H400; Aquatic Chronic 1, H410	
01-2119463273-41		
1314-13-2	Zinc oxide	0.1 - < 0.5 %
215-222-5	Aquatic Acute 1 (M = 1), H400; Aquatic Chronic 1 (M = 1), H410	
01-2119463881-32		

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation:

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

After contact with skin:

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes:

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if easy to do. Continue rinsing.

After ingestion:

Observe risk of aspiration if vomiting occurs. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

4.3 Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

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5.1 Extinguishing media

Suitable extinguishing media:

Foam, extinguishing powder, Carbon dioxide (CO₂).

Unsuitable extinguishing media:

Water.

5.2 Special hazards arising from the substance or mixture

Extremely flammable aerosol. Vapours can form explosive mixtures with air.

5.3 Advice for firefighters

Special protective equipment:

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information:

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapours/spray. Avoid contact with skin, eyes and clothing. Use personal protection equipment.

6.2 Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Risk of explosion.

6.3 Methods and material for containment and cleaning up

Provide adequate ventilation. Absorb with liquid-binding material (e. g. sand, diatomaceous earth, acid- or universal binding agents).

6.4 Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Do not pierce or burn, even after use. If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapours/spray.

Advice on protection against fire and explosion

Pressurized container: May burst if heated. Protect from sunlight. Do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use. Take precautionary measures against static discharge.

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7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:

Observe regulations on storage of pressurized cans.

Advice on storage compatibility:

Do not store together with: oxidising agents, pyrophoric or self-heating substances.

Further information on storage conditions:

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

7.3 Specific end use(s)

Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Exposure limits (EH40):

CAS-No.	Substance	ppm	mg/m ³	Category	Origin
115-10-6	Dimethyl ether	400	766	TWA (8h)	WEL
		500	958	STEL (15 min)	
8050-09-7	Rosin-based solder flux fume	-	0.05	TWA (8h)	WEL
		-	0.15	STEL (15 min)	
67-64-1	Acetone	500	1210	TWA (8h)	WEL
		1500	3620	STEL (15 min)	
110-82-7	Cyclohexane	100	350	TWA (8h)	WEL
		300	1050	STEL (15 min)	

8.2 Exposure controls

Appropriate engineering controls:

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means. Do not breathe gas/vapour/aerosols.

Protective and hygiene measures:

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection: Goggles

Hand protection: Safety gloves (DIN EN 374); suitable material: butyl rubber

Thickness of the glove material: 0.5 mm

Breakthrough time (maximum wearing time) > 240 min.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection: Wear anti-static footwear and clothing.

Respiratory protection: In case of inadequate ventilation wear respiratory protection.

Recommended filter type: filter A-P2

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Environmental exposure controls:

See section 7: No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Aerosol
Colour:	Transparent
Odour:	Like: Solvent
pH value:	Not applicable
Melting point:	Not applicable
Boiling point:	Not applicable
Flash point:	Not applicable
Explosive properties:	In use, may form flammable/explosive vapour-air mixture
Lower explosion limit:	1.1 vol%
Upper explosion limit:	26.2 vol%
Ignition temperature:	> 200 °C
Vapour pressure (at 20 °C):	Not determined
Vapour pressure (at 50 °C):	Not determined
Density (at 20 °C):	0.7 g/cm ³ (calculated)
Water solubility (at 20 °C):	Practically insoluble
Partition coefficient:	Not determined
Viscosity, dynamic:	Not applicable
Viscosity, kinematic:	Not applicable
Evaporation rate:	Not determined

9.2 Other information

Solid content:	Not determined
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SECTION 10: Stability and reactivity

10.1 Reactivity

Extremely flammable aerosol.

10.2 Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

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10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

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

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination
Rosin						
Oral	LD50		2800 mg/kg		Rat	Study pre-dated mode
Dermal	LD50	OECD 402	> 2000 mg/kg		Rat	
Isohexane						
Oral	LD50		> 5000 mg/kg		Rat	
Dermal	LD50		> 3000 mg/kg		Rat	
Inhalation	LC50		> 20 mg/l	4 h	Rat	
Acetone						
Oral	LD50		5800 mg/kg		Rat	RTECS
Dermal	LD50		> 15800 mg/kg		Rabbit	IUCLID
Inhalation	LC50		76 mg/l	4 h	Rat	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics						
Oral	LD50		> 5840 mg/kg		Rat	
Dermal	LD50		> 2920 mg/kg		Rat	
Inhalation	LC50	OECD 403	16 mg/l	4 h	Rat	
Zinc oxide						
Oral	LD50	OECD 423	> 5000 mg/kg		Mouse	
Dermal	LD50	OECD 402	> 2000 mg/kg		Rat	

Irritation and corrosivity:

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects:

May cause an allergic skin reaction.

STOT-single exposure:

May cause drowsiness or dizziness.

STOT-repeated exposure:

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

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Carcinogenic/mutagenic/toxic effects for reproduction:

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

Aspiration hazard:

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

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the preparation/mixture itself.

	Method	Value	Duration	Species	Source
Dimethyl ether					
Acute Tox. fishes	LC50	> 4100 mg/l	96 h		
Acute Tox. invertebrates	EC50	> 4400 mg/l	48 h		
Rosin					
Acute Tox. fishes	LC50	< 10 mg/l	96 h	Brachydanio rerio	OECD 203
Acute Tox. algae	ErC50	> 1000 mg/l	72 h	Selenastrum capricornutum	OECD 201
Acute Tox. invertebrates	EC50	911 mg/l	48 h	Daphnia magna	OECD 202
Acute Tox. bacteria		(> 10000 mg/l)	3 h	Activated sludge	OECD 209
Isohexane, < 5% n-hexane					
Acute Tox. fishes	LC50	18.27 mg/l	96 h	Oncorhynchus mykiss	ECHA
Acute Tox. algae	ErC50	13.56 mg/l	72 h	Selenastrum capricornutum	ECHA
Acute Tox. invertebrates	EC50	31.9 mg/l	48 h	Daphnia magna	ECHA
Toxicity fishes	NOEC	4.089 mg/l	28 d	Oncorhynchus mykiss	ECHA
Toxicity invertebrates	NOEC	7.138 mg/l	21 d	Daphnia magna	ECHA
Acetone					
Acute Tox. fishes	LC50	8120 mg/l	96 h	Pimephales promelas	OECD 203
Acute Tox. invertebrates	EC50	8800 mg/l	48 h	Daphnia magna	
Toxicity algae	NOEC	430 mg/l	4 d		
Toxicity invertebrates	NOEC	2212 mg/l	28 d	Daphnia magna	ECHA
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics					
Acute Tox. fishes	LC50	> 13.4 mg/l	96 h	Oncorhynchus mykiss	OECD 203
Acute Tox. algae	ErC50	12 mg/l	72 h	Pseudokirchneriella subcapitata	OECD 201
Acute Tox. invertebrates	EC50	3 mg/l	48 h	Daphnia magna	OECD 202
Toxicity fishes	NOEC	1.534 mg/l	28 d	Oncorhynchus mykiss	
Toxicity invertebrates	NOEC	1 mg/l	21 d	Daphnia magna	OECD 211
Cyclohexane					
Acute Tox. fishes	LC50	4.53 mg/l	96 h	Pimephales promelas	OECD 203
Acute Tox. algae	ErC50	3.4 mg/l	72 h	Selenastrum capricornutum	OECD 201
Acute Tox. invertebrates	EC50	0.9 mg/l	48 h	Daphnia magna	OECD 202
Zinc oxide					

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Acute Tox. fishes	LC50	4.92 mg/l	96 h	Danio rerio	ECHA
Acute Tox. invertebrates	EC50	7.5 mg/l	48 h	Daphnia magna	OECD 202
Toxicity algae	NOEC	(0,08 mg/l)	4 d	Dunliella tertiolecta	
Toxicity invertebrates	NOEC	(0.058 mg/l)	21 d	Daphnia magna	OECD 211
Acute Tox. bacteria		(5.2 mg/l)	3 h	Activated sludge	OECD 209

12.2 Persistence and degradability

The product has not been tested.

CAS No.	Chemical name			
	Method	Value	[d]	Source
	Evaluation			
107-83-5	Isohexane, < 5% n-hexane			
	Biodegradation	98 %	28	
	Readily biodegradable (according to OECD criteria)			
67-64-1	Acetone			
	Biodegradation	91 %	28	
	Readily biodegradable (according to OECD criteria)			
	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics			
	Biodegradation	98 %	28	
	Readily biodegradable (according to OECD criteria)			

12.3 Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water:

CAS No.	Chemical name	Log Pow
115-10-6	Dimethyl ether	0,07
8050-09-7	Rosin	5,046
107-83-5	Isohexane, < 5% n-hexane	4
67-64-1	Acetone	-0,24

12.4 Mobility in soil

The product has not been tested.

12.5 Result of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Other adverse effects

No information available.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Advice on disposal:

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products:

16 05 04 Wastes not otherwise specified in the list; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances – classified as hazardous waste

Waste disposal number of contaminated packaging:


16 05 05 Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances – classified as hazardous waste

Contaminated packaging:

Non-contaminated packages may be recycled. Handle contaminated packages 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 classes:	2
14.4 Packing group:	-
Hazard label:	2.1 
Classification code:	5F
Limited quantity (LQ):	1 L
Transport category:	2
Tunnel restriction code:	D


Other applicable information (land transport):

Transport as „Limited Quantities“ acc. chapter 3.4 ADR/RID.


Inland waterways transport (ADN)

14.1 UN number:	UN 1950
14.2 UN proper shipping name:	AEROSOLS
14.3 Transport hazard classes:	2
14.4 Packing group:	-


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Hazard label:	2.1 
Classification code:	5F
Limited quantity (LQ):	1 L

Marine transport (IMDG)

14.1 UN number:	UN 1950
14.2 UN proper shipping name:	AEROSOLS
14.3 Transport hazard classes:	2.1
14.4 Packing group:	-
Hazard label:	2.1 
Marine pollutant:	-
Limited quantity (LQ):	1000 mL
EmS:	F-D, S-U

Air transport (ICAO)

14.1 UN number:	UN 1950
14.2 UN proper shipping name:	AEROSOLS, flammable
14.3 Transport hazard classes:	2.1
14.4 Packing group:	-
Hazard label:	2.1 
Limited quantity (LQ) Passenger:	30 kg G

14.5 Environmental hazards

Environmentally hazardous: no

14.6 Special precautions for user

Warning: Flammable gas

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

Not relevant.

SECTION 15: Regulatory information

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

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EU regulatory information:

2010/75/EU (VOC): 95.094 % (665.655 g/l)
2012/18/EU (SEVESO III): P3a FLAMMABLE AEROSOLS

National regulatory information:

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC)
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers

Water contaminating class (D): 1 – slightly hazardous to water

15.2 Chemical safety assessment

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

SECTION 16: Other information

Relevant H and EUH statements (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
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
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful 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.