



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### ADDINOL Electro Contact Spray

Print date: 29.05.2015

Product code: 717302

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

##### 1.1. Product identifier

ADDINOL Electro Contact Spray

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

###### Use of the substance/mixture

Aerosol - Cleaning agent.

##### 1.3. Details of the supplier of the safety data sheet

Company name:	ADDINOL Lube Oil GmbH	
	Gebäude 4609	
Street:	Am Haupttor	
Place:	D-06237 Leuna	
Telephone:	+49 (0) 3461 845-0	Telefax: +49 (0) 3461 845-555
e-mail:	info@addinol.de	
Contact person:	Application Technology	
Internet:	www.addinol.de	
Responsible Department:	ADDINOL Application Technology	

**1.4. Emergency telephone number:** +49 (0) 3461-845201 - This number is serviced during office hours.

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification according to Directive 67/548/EEC or 1999/45/EC

Indications of danger: F+ - Extremely flammable

R phrases:

Extremely flammable.

Repeated exposure may cause skin dryness or cracking.

This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].

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

Hazard categories:

Flammable gas: Flam. Gas 1

Hazard Statements:

Extremely flammable aerosol.

Pressurised container: May burst if heated.

##### 2.2. Label elements

Signal word:	Danger
Pictograms:	GHS02



###### Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.

###### Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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- 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.

#### Additional advice on labelling

This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].

#### 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 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		
918-167-1	Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics	< 50 %
	Xn - Harmful R65-66	
	Flam. Liq. 3, Asp. Tox. 1; H226 H304 EUH066	
01-2119472146-39		
203-448-7	butane	< 20 %
106-97-8	F+ - Extremely flammable R12	
601-004-00-0	Flam. Gas 1; H220	
200-827-9	propane	< 10 %
74-98-6	F+ - Extremely flammable R12	
601-003-00-5	Flam. Gas 1; H220	
203-905-0	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether	< 2,50 %
111-76-2	Xn - Harmful, Xi - Irritant R20/21/22-36/38	
603-014-00-0	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2, Skin Irrit. 2; H332 H312 H302 H319 H315	

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

#### Further Information

DMSO-Extrakt < 3 %, IP 346.

Concentration of PCBs < 1mg/kg.

Classification system: The classification corresponds to the current EC lists and is completed by information from specialist literature and company information.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

Remove affected person from the danger area and lay down. Position and transport victim on their side. In case of respiratory distress, bring into semi-upright, seated position. Self-protection of the first aider. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

##### After inhalation

Move victim to fresh air. Put victim at rest and keep warm. Seek medical attention if problems persist.



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In case of breathing difficulties administer oxygen.

#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. 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

Do NOT induce vomiting.

Rinse mouth thoroughly with water. Call a physician immediately.

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

following inhalation: drowsiness. Headache. Nausea.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>). Extinguishing powder. alcohol resistant foam.

##### **Unsuitable extinguishing media**

High power water jet.

#### **5.2. Special hazards arising from the substance or mixture**

In case of fire may be liberated: Carbon dioxide (CO<sub>2</sub>). Carbon monoxide. Nitrogen oxides (NO<sub>x</sub>). carbon black.

Flammable.. Vapours may form explosive mixtures with air.

#### **5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus. Wear chemical resistant suit.

#### **Additional information**

Co-ordinate fire-fighting measures to the fire surroundings. Use water spray/stream to protect personnel and to cool endangered containers. In case of fire and/or explosion do not breathe fumes. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

### SECTION 6: Accidental release measures

#### **6.1. Personal precautions, protective equipment and emergency procedures**

Remove persons to safety. Wear a self-contained breathing apparatus and chemical resistant suit. Vapours are heavier than air and will spread at floor level. Avoid contact with skin and eyes. Keep away from sources of ignition. - No smoking.

#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Prevent spread over a wide area (e.g. by containment or oil barriers).

#### **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 recovered material as prescribed in the section on waste disposal. Clean contaminated objects and areas thoroughly observing environmental regulations.

#### **6.4. Reference to other sections**

Refer to the provisions listed in Sections 8, 12 and 13.



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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Use only in well-ventilated areas. Take precautionary measures against static discharges. Do not spray on naked flames or any incandescent material. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Avoid contact with skin, eye and clothing.

#### Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use. Heating causes rise in pressure with risk of bursting.

#### Further information on handling

People who suffer from asthma, allergies, chronic or recurring respiratory illnesses must not be deployed in processes, which use this substance.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep the packing dry and well sealed to prevent contamination and absorption of humidity. Keep container tightly closed in a cool place. Keep away from sources of ignition. - No smoking.

Please note: TRG 300, aerosol directive (75/324/EEC).

#### Advice on storage compatibility

Keep away from food, drink and animal feedingstuffs.

Keep away from: Oxidizing agents. Material, rich in oxygen, oxidizing.

#### Further information on storage conditions

Recommended storage temperature: 10 - 30°C. Do not store at temperatures over: 50°C.

### 7.3. Specific end use(s)

Further information: see technical data sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
111-76-2	2-Butoxyethanol	25	123		TWA (8 h)	WEL
		50	246		STEL (15 min)	WEL
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL

#### Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
111-76-2	2-Butoxyethanol	butoxyacetic acid	240 mmol/mol	urine	Post shift

#### Additional advice on limit values

source:

### 8.2. Exposure controls



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#### Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

#### Protective and hygiene measures

Wash hands before breaks and after work. Take off immediately all contaminated clothing. Wash contaminated clothing prior to re-use. Do not eat, drink, smoke or sneeze at the workplace.

#### Eye/face protection

Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): DIN EN 166

#### Hand protection

Tested protective gloves are to be worn: German Industry Norms (DIN) / European Norms (EN): DIN EN 374

Duration of wearing with permanent contact: 480 min

Suitable material: NBR (Nitrile rubber).

Thickness of glove material: 0.7 mm.

Wearing time with occasional contact (splashes): 30 min

Suitable material: NBR (Nitrile rubber).

Thickness of glove material: 0.4 mm

Protect skin by using skin protective cream.

#### Skin protection

Wear suitable protective clothing. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

#### Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Breathing protection with filter against organic gases and vapours type A - boiling point > 65°C: A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	gaseous
Colour:	light yellow
Odour:	odourless

#### Test method

#### Changes in the physical state

Initial boiling point and boiling range:	< -20 °C
Flash point:	< -20 °C DIN EN ISO 2592

#### Explosive properties

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

Lower explosion limits:	1,5 vol. %
Upper explosion limits:	10,8 vol. %
Ignition temperature:	365 °C DIN 51794
Density (at 20 °C):	0,765 g/cm³ DIN 51757

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Water solubility: insoluble  
(at 20 °C)

Viscosity / kinematic: not applicable

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Stable with proper care and handling.

**10.2. Chemical stability**

The product is chemically stable when handled and stored under normal conditions.

**10.3. Possibility of hazardous reactions**

Ignition hazard.

Vapours may form explosive mixtures with air.

**10.4. Conditions to avoid**

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children. Take precautionary measures against static discharges. See protective measures under point 7 and 8.

**10.5. Incompatible materials**

No data available

**10.6. Hazardous decomposition products**

In case of fire may be liberated: Carbon dioxide (CO<sub>2</sub>). Carbon monoxide. Nitrogen oxides (NO<sub>x</sub>). carbon black.

Vapours may form explosive mixtures with air.

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

No data available

Mixture not tested.

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
106-97-8	butane				
	inhalative (4 h) gas	LC50	273000 ppm	Rat	GESTIS
111-76-2	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether				
	oral	LD50	470 mg/kg	Rat	
	dermal	ATE	1100 mg/kg		
	inhalative gas	ATE	4500 ppm		

**Irritation and corrosivity**

Irritant effect on the eye: Not an irritant.

Irritant effect on the skin: Prolonged/repetitive skin contact may cause skin defatting or dermatitis.

**Sensitising effects**

Evaluation: no danger of sensitization.

**STOT-single exposure**

Vapours may cause drowsiness and dizziness.

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**Severe effects after repeated or prolonged exposure**

Prolonged/repetitive skin contact may cause skin defatting or dermatitis.

**Carcinogenic/mutagenic/toxic effects for reproduction**

No data available

**Further information**

If handled with proper care and at intended use, the product does not cause any harmful effects acc. to our experiences and available information.

**SECTION 12: Ecological information****12.1. Toxicity**

No data available

Mixture not tested.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h]   [d]	Species	Source
111-76-2	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether					
	Acute fish toxicity	LC50	1490 mg/l	96 h	Lepomis macrochirus	

**12.2. Persistence and degradability**

Not easily bio-degradable (according to OECD-criteria). Do not allow to enter into surface water or drains.

**12.3. Bioaccumulative potential**

No data available

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
106-97-8	butane	2,89
74-98-6	propane	2,36
111-76-2	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether	0,81 (25°C)

**12.4. Mobility in soil**

Product is easily volatile. Product is difficult to dissolve in water.

**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**

No data available

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

Do not open container by force. Must not be disposed of with domestic refuse. Do not allow to enter into surface water or drains.

**Waste disposal number of waste from residues/unused products**

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing dangerous substances  
Classified as hazardous waste.

**Contaminated packaging**

Dispose of waste according to applicable legislation.

**SECTION 14: Transport information**



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### 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



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)

Quantities released: E0  
Special provisions: 190 - 327 - 625  
Transportation category: 2  
Tunnel restriction code: B1D

### Inland waterways transport (ADN)

**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



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

#### Other applicable information (inland waterways transport)

Quantities released: E0  
Special provisions: 190 327 625

### Marine transport (IMDG)

**14.1. UN number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2.1  
**14.4. Packing group:** -  
Hazard label: 2.1



Special Provisions: 63, 190, 277, 327, 344, 959  
Limited quantity: See SP277  
EmS: F-D, S-U



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**Other applicable information (marine transport)**

Quantities released: E0

Special provisions: 63, 190, 277, 327, 959

**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



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)**

Passenger LQ: Y203  
Quantities released: E0  
Danger: Y203  
Special provisions: A145 - A153

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

Warning: Flammable gases.

**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**

2004/42/EC (VOC): 84,6 % (579,51 g/l)

**National regulatory information**

Employment restrictions: Observe employment restrictions for young people.  
Water contaminating class (D): 1 - slightly water contaminating

**15.2. Chemical safety assessment**

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

**SECTION 16: Other information****Relevant R-phrases (Number and full text)**

12 Extremely flammable.  
20/21/22 Harmful by inhalation, in contact with skin and if swallowed.  
36/38 Irritating to eyes and skin.  
65 Harmful: may cause lung damage if swallowed.  
66 Repeated exposure may cause skin dryness or cracking.

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

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H226	Flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
EUH066	Repeated exposure may cause skin dryness or cracking.

**Further Information**

This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].

These given data only refer to the named product. If the product is used together with other materials or in manufacturing processes the data might not be applicable any more. The data are based on today's state of our knowledge and experience. They are, however, no guarantee of any specific product properties and do not established any legally valid contractual relationship.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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