



Safety Data Sheet

according to Regulation (EC) No 1907/2006

ADDINOL TSM 400 Spray

Print date: 19.10.2016

Product code: 717231

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

1.1. Product identifier

ADDINOL TSM 400 Spray

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

Use of the substance/mixture

Aerosol - Parting 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 - Only available during office hours.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Aerosol: Aerosol 1

Aerosol: Aerosol 3

Skin corrosion/irritation: Skin Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Extremely flammable aerosol.

Pressurised container: May burst if heated.

Causes skin irritation.

May cause drowsiness or dizziness.

Toxic to aquatic life with long lasting effects.

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

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Signal word: Danger

Pictograms:



Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.



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H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
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 components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
106-97-8	butane			< 35 %
	203-448-7	601-004-00-0		
	Flam. Gas 1; H220			
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane			< 25 %
	921-024-6		01-2119475514-35	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411			
74-98-6	propane			< 20 %
	200-827-9	601-003-00-5		
	Flam. Gas 1; H220			
7429-90-5	aluminium powder (stabilised)			< 5 %
	231-072-3	013-002-00-1		
	Water-react. 2, Flam. Sol. 1; H261 H228			
110-82-7	cyclohexane			< 1 %
	203-806-2	601-017-00-1		
	Flam. Liq. 2, Asp. Tox. 1, Skin Irrit. 2, STOT SE 3, Aquatic Acute 1, Aquatic Chronic 1; H225 H304 H315 H336 H400 H410			
110-54-3	n-hexane			< 0,5 %
	203-777-6	601-037-00-0		
	Flam. Liq. 2, Repr. 2, Asp. Tox. 1, STOT RE 2, Skin Irrit. 2, STOT SE 3, Aquatic Chronic 2; H225 H361f *** H304 H373 ** H315 H336 H411			

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

Further Information

DMSO-Extrakt < 3 %, IP 346.

Classification system: The classification corresponds to the current EC lists and is completed by information



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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. 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

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently 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

Atomized water. Carbon dioxide (CO₂). Extinguishing powder. Foam.

Unsuitable extinguishing media

Water.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon dioxide (CO₂). Carbon monoxide. Nitrogen oxides (NO_x). 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

Provide adequate ventilation. The vapours are heavier than air and can accumulate in high concentrations on the ground, in cavities, channels and cellars. Avoid contact with skin, eye and clothing. Keep away from sources of ignition. - No smoking.



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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.

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.

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

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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
7429-90-5	Aluminium metal, respirable dust	-	4		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL
110-82-7	Cyclohexane	100	350		TWA (8 h)	WEL
		300	1050		STEL (15 min)	WEL
110-54-3	n-Hexane	20	72		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

Additional advice on limit values

source:

8.2. Exposure controls



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



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	gaseous
Colour:	black
Odour:	characteristic

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:	0,8 vol. %
Upper explosion limits:	12 vol. %
Ignition temperature:	> 200 °C DIN 51794
Density (at 20 °C):	0,705 g/cm ³ DIN 51757
Water solubility: (at 20 °C)	insoluble
Viscosity / kinematic: (at 20 °C)	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

Oxidizing agents. Material, rich in oxygen, oxidizing.

10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon dioxide (CO₂). Carbon monoxide. Nitrogen oxides (NO_x). carbon black.

Combustible. Vapours may form explosive mixtures with air.

SECTION 11: Toxicological information

11.1. Information on toxicological effects



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Acute toxicity

No data available

Mixture not tested.

CAS No	Chemical name			
	Exposure route	Dose	Species	Source
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane			
	oral	LD50 > 5000 mg/kg	Rat	
	dermal	LD50 > 2000 mg/kg	Rabbit	
	inhalative (4 h) vapour	LC50 > 20 mg/l	Rat	

Irritation and corrosivity

Irritant effect on the eye: mild irritant.

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

Sensitising effects

Evaluation: no danger of sensitization.

Carcinogenic/mutagenic/toxic effects for reproduction

No data available

STOT-single exposure

Vapours may cause drowsiness and dizziness.

STOT-repeated exposure

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

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	Dose	[h] [d]	Species	Source
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane				
	Acute fish toxicity	LC50 11,40 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50 30 mg/l	72 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50 3 mg/l	48 h	Daphnia magna	
110-54-3	n-hexane				
	Acute fish toxicity	LC50 2,5 mg/l	96 h	Pimephales promelas	Geiger et al. 1990

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



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Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
106-97-8	butane	2,89
74-98-6	propane	2,36
110-54-3	n-hexane	3,9

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

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 hazardous substances
Classified as hazardous waste.

Contaminated packaging

Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)

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



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



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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

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



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ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Warning: Flammable gases.

14.7. Transport in bulk according to Annex II of Marpol 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): 75% (528,75 g/l)

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Water contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment

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

SECTION 16: Other information

Relevant H and EUH statements (number and full text)

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H228	Flammable solid.
H229	Pressurised container: May burst if heated.
H261	In contact with water releases flammable gases.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
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.

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.

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