



Safety Data Sheet

according to Regulation (EC) No 1907/2006

ADDINOL TSM 400 Spray

Print date: 02.10.2014

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 845-201 | Telefax: +49 (0) 3461 845-561 |
| 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 845-201 - This number is serviced during office hours.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: F+ - Extremely flammable, Xi - Irritant, N - Dangerous for the environment

R phrases:

Extremely flammable.

Irritating to skin.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Vapours may cause drowsiness and dizziness.

GHS classification

Hazard categories:

Aerosol: Aerosol 1

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.

2.2. Label elements

Hazardous components which must be listed on the label

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

Signal word: Danger

Pictograms: GHS02-GHS07-GHS09

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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

| | |
|-----------|--|
| 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. |

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

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Hazardous components

| EC No | Chemical name | Quantity |
|------------------|--|-----------|
| CAS No | Classification | |
| Index No | GHS classification | |
| REACH No | | |
| 203-448-7 | butane | 30 - 35 % |
| 106-97-8 | F+ - Extremely flammable R12 | |
| 601-004-00-0 | Flam. Gas 1; H220 | |
| 921-024-6 | Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane | 25 - 30 % |
| 64742-49-0 | F - Highly flammable, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R11-38-51-53-65-67 | |
| | Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411 | |
| 01-2119475514-35 | | |
| 200-827-9 | propane | 15 - 20 % |
| 74-98-6 | F+ - Extremely flammable R12 | |
| 601-003-00-5 | Flam. Gas 1; H220 | |
| 265-157-1 | Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified | 15 - 20 % |
| 64742-54-7 | Xn - Harmful R65 | |
| | Asp. Tox. 1; H304 | |
| 01-2119484627-25 | | |

Full text of R and H 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**

Move victim out of danger zone 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.



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Rinse mouth thoroughly with water. Immediately get medical attention.

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

Can be released in case of fire: 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

Extinguishing materials should be selected according to the surrounding area. 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 empty into drains or the aquatic environment.

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.

6.2. Environmental precautions

Do not empty into drains or the aquatic environment. In case of gas being released or leakage into waters, ground or the drainage system, the appropriate authorities must be informed. Prevent spreading over great surfaces (e.g. by damming or installing oil booms).

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 assimilated material according to 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 into flames or ignition sources. 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.



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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 dampness. 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: refer to Technical Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

| CAS No | Substance | ppm | mg/m ³ | fib/cm ³ | Category | Origin |
|----------|---|------|-------------------|---------------------|---------------|--------|
| 106-97-8 | Aliphatic hydrocarbon gases, Alkanes (C1-C4), Butane | 1000 | - | - | TWA (8 h) | |
| | | - | - | - | STEL (15 min) | |
| 74-98-6 | Aliphatic hydrocarbon gases, Alkanes (C1-C4), Propane | 1000 | - | - | TWA (8 h) | |
| | | - | - | - | STEL (15 min) | |

Additional advice on limit values

source:

8.2. Exposure controls



Appropriate engineering controls

Provide for sufficient ventilation and punctiform suction at critical points.

Protective and hygiene measures

Wash hands before breaks and at the end of 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).



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Thickness of glove material: 0.7 mm.

Duration of wearing 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 suction or ventilation measures are not possible or are insufficient, protective breathing apparatus must be worn.

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/cm³ DIN 51757Water solubility:
(at 20 °C) insolubleViscosity / 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.

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10.5. Incompatible materials

Oxidizing agents. Material, rich in oxygen, oxidizing.

10.6. Hazardous decomposition productsCan be released in case of fire: 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****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 |
| 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. | |
| 64742-54-7 | Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified | | | | |
| | oral | LD50 | >2.000 mg/kg | Rat. | |
| | dermal | LD50 | >2.000 mg/kg | Rabbit. | |
| | inhalative (4 h) vapour | LC50 | >5.000 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.

STOT-single exposure

Vapours may cause drowsiness and dizziness.

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.

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| CAS No | Chemical name | Method | Dose | [h] [d] | Species | Source |
|------------|---|--------|-------------|-----------|---------------------------------|--------|
| | Aquatic toxicity | | | | | |
| 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 | |
| | Acute algae toxicity | ErC50 | 30 mg/l | 72 h | Pseudokirchneriella subcapitata | |
| | Acute crustacea toxicity | EC50 | 3 mg/l | 48 h | Daphnia magna | |
| 64742-54-7 | Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified | | | | | |
| | Acute fish toxicity | LC50 | >1.000 mg/l | 96 h | | |
| | Acute algae toxicity | ErC50 | >100 mg/l | 72 h | | |

12.2. Persistence and degradability

Not easily bio-degradable (according to OECD-criteria). Do not empty into drains or the aquatic environment.

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 |

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 empty into drains or the aquatic environment.

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

Waste disposal according to official state regulations.

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



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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

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



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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

1999/13/EC (VOC): 75% (528,75 g/l)

National regulatory information

Employment restrictions: Observe employment restrictions for young people.

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

Full text of R phrases referred to under Sections 2 and 3

- 11 Highly flammable.
- 12 Extremely flammable.
- 38 Irritating to skin.
- 51 Toxic to aquatic organisms.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 53 May cause long-term adverse effects in the aquatic environment.
- 65 Harmful: may cause lung damage if swallowed.
- 67 Vapours may cause drowsiness and dizziness.

Full text of H statements referred to under Sections 2 and 3

- H220 Extremely flammable gas.
- H222 Extremely flammable aerosol.
- H225 Highly flammable liquid and vapour.
- H229 Pressurised container: May burst if heated.



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| | |
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| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H336 | May cause drowsiness or dizziness. |
| 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.)