



PRODUCT SAFETY DATA SHEET

1. Identification of the substance/preparation and of the company/undertaking

Product details

Trade name: BRAKE DUST ARRESTOR LI 150

Article number: 11-00000-1857

Application of the substance / the preparation Cleaner solvent

Supplier: Fortron Marketing & Distribution, Farringdon Road, Cumnor, Oxford OX2 9RE

Emergency information: Emergency Phone Number : 07976540170 or 079767339153

2. Hazards identification

Hazard description: Xi Irritant
F+ Extremely flammable
N Dangerous for the environment

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurized container.

Has a narcotizing effect.

R 12 Extremely flammable.

R 38 Irritating to skin.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 67 Vapours may cause drowsiness and dizziness. 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. Buildup of explosive mixtures possible without sufficient ventilation.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

GHS label elements

Flame Danger

H222 - Extremely flammable aerosol.

exclamation mark Warning

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H336 - May cause drowsiness or dizziness.

environment

H411 - Toxic to aquatic life with long lasting effects.

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. Buildup of explosive mixtures possible without sufficient ventilation.

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P251 Pressurized container: Do not pierce or burn, even after use.

Response:

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage:

P405 Store locked up.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Disposal:

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Chemical characterization

Description: Active substance with propellant

Dangerous components:

106-97-8 butane (containing < 0.1% butadiene (203-450-8)) F+; R 12 Danger: flame 2.2/1 Warning: gas cylinder 2.5/C EINECS: 203-448-7	25-<50 %
142-82-5 heptane Xn, Xi, F, N; R 11-38-50/53-65-67 Danger: flame 2.6/2; health hazard 3.10/1 Warning: environment 4.1.A/1, 4.1.C/1; exclamation mark 3.2/2, 3.8/3 EINECS: 205-563-8	10-<25 %
74-98-6 propane F+; R 12 Danger: flame 2.2/1 Warning: gas cylinder 2.5/C EINECS: 200-827-9	10-<25 %
67-64-1 acetone Xi, F; R 11-36-66-67 Danger: flame 2.6/2 Warning: exclamation mark 3.3/2, 3.8/3 EINECS: 200-662-2	10-<25 %

109-87-5 dimethoxymethane F; R 11 Danger: flame 2.6/2 EINECS: 203-714-2	10-<25 %
64-17-5 ethanol F; R 11 Danger: flame 2.6/2 EINECS: 200-578-6	2.5-<10 %
111-76-2 2-butoxyethanol Xn, Xi; R 20/21/22-36/38 Warning: exclamation mark 3.1.O/4, 3.1.D/4, 3.1.I/4, 3.2/2, 3.3/2 EINECS: 203-905-0	2.5-<10 %

Ingredients according to detergents guideline 648/2004/EC

aliphatic hydrocarbons >= 30%

4. First-aid measures

After inhalation:

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

Do not induce vomiting; call for medical help immediately.

5. Fire-fighting measures

Suitable extinguishing agents:

Water haze
Fire-extinguishing powder
Carbon dioxide
Alcohol resistant foam

For safety reasons unsuitable extinguishing agents: Water with full jet

Protective equipment: Mount respiratory protective device.

6. Accidental release measures

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting: Ensure adequate ventilation.

7. Handling and storage

Handling:

Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.

Information about fire - and explosion protection:

Do not spray onto a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

Storage:

Requirements to be met by storerooms and receptacles:

Store in a cool location.
Observe official regulations on storing packagings with pressurized containers.

Information about storage in one common storage facility:

Observe official regulations on storing packagings with pressurized containers.

Further information about storage conditions:

Keep receptacle tightly sealed.
Do not seal receptacle gas tight.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.

8. Exposure controls/personal protection

Additional information about design of technical facilities:

No further data; see item 7.

Ingredients with limit values that require monitoring at the workplace:

106-97-8 butane (containing < 0.1% butadiene (203-450-8))

WEL: Short-term value: 1810 mg/m³, 750 ppm

Long-term value: 1450 mg/m³, 600 ppm

Carc (if more than 0.1% of buta-1.3-diene)

142-82-5 heptane

WEL: Long-term value: 500 ppm

74-98-6 propane

WEL: Short-term value: 3600 mg/m³, 2000 ppm

Long-term value: 1800 mg/m³, 1000 ppm

67-64-1 acetone

WEL: Short-term value: 3620 mg/m³, 1500 ppm

Long-term value: 1210 mg/m³, 500 ppm

109-87-5 dimethoxymethane

WEL: Short-term value: 3950 mg/m³, 1250 ppm

Long-term value: 3160 mg/m³, 1000 ppm

64-17-5 ethanol

WEL: Long-term value: 1920 mg/m³, 1000 ppm

111-76-2 2-butoxyethanol

WEL: Short-term value: 50 ppm

Long-term value: 25 ppm

Sk

Additional information:

The lists valid during the making were used as basis.

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Use suitable respiratory protective device in case of insufficient ventilation.

Filter AX/P2

Protection of hands:

Protective gloves

Solvent resistant gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves Nitrile rubber, NBR

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles

Body protection: Use protective suit.

9. Physical and chemical properties**General Information**

Form: Aerosol

Colour: According to product specification

Odour: Characteristic

Value/Range Unit Method**Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: -44 °C

Flash point: -19 °C

Ignition temperature: 215 °C

Self-igniting: Product is not selfigniting.

Danger of explosion:

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits:

Lower: 1.1 Vol %

Upper: 13.0 Vol %

Vapour pressure: at 20 °C 4 bar

Density: at 20 °C 0.641 g/cm³

Solubility in / Miscibility with

water: Not miscible or difficult to mix.

Solvent content:

Organic solvents: 100.0 %

10. Stability and reactivity

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Materials to be avoided:

Dangerous reactions No dangerous reactions known.

Dangerous decomposition products:

No dangerous decomposition products known.

11. Toxicological information

Acute toxicity:

LD/LC50 values relevant for classification:

67-64-1 acetone

Oral: LD50: 5800 mg/kg (rat)

Dermal: LD50: 20000 mg/kg (rbt)

Inhalative: LC50/4h: 39 mg/l (rat)

111-76-2 2-butoxyethanol

Oral: LD50: 300 mg/kg (rabbit)

LD50: 470 mg/kg (rat)

Dermal: LD50: 2000 mg/kg (rabbit)

Primary irritant effect:

On the skin: Irritant to skin and mucous membranes.

On the eye: No irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

12. Ecological information

Ecotoxicological effects:

Aquatic toxicity:

142-82-5 heptane

EC50/24h: >10 mg/l (Daphnia magna)

LC50(48h): 4924 mg/l (Fish)

67-64-1 acetone

EC50/48h: 39 mg/l (Daphnia magna)

LC50/96h: >5000 mg/l (Fish)

111-76-2 2-butoxyethanol

LC50: 1490 mg/l (Lepomis macrochirus (96 h))

Remark: Toxic for fish

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

13. Disposal considerations

Product:

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation:

Disposal must be made according to official regulations.

14. Transport information

Land transport ADR/RID (cross-border)

ADR/RID class: 2 5F Gases.

Danger code (Kemler): -

UN-Number: 1950

Packaging group: -

Hazard label 2.1

Special marking: Symbol (fish and tree)

Description of goods: 1950 AEROSOLS

Limited quantities (LQ) LQ2

Transport category 2

Tunnel restriction code D

Maritime transport IMDG:

IMDG Class: 2.1

UN Number: 1950

Label 2.1

Packaging group: -

EMS Number: F-D,S-U

Marine pollutant: No

Proper shipping name: AEROSOLS

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 2.1

UN/ID Number: 1950

Label 2.1

Packaging group: -

Proper shipping name: AEROSOLS, flammable

UN "Model Regulation": UN1950, AEROSOLS, 2.1

15. Regulatory information

Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

Code letter and hazard designation of product:

Xi Irritant F+ Extremely flammable N Dangerous for the environment

Risk phrases:

- 12 Extremely flammable.
- 38 Irritating to skin.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 67 Vapours may cause drowsiness and dizziness.

Safety phrases:

- 2 Keep out of the reach of children.
- 16 Keep away from sources of ignition — No smoking.
- 23 Do not breathe fumes/aerosol.
- 29 Do not empty into drains.
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 51 Use only in well-ventilated areas.

Special labelling of certain preparations:

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. Buildup of explosive mixtures possible without sufficient ventilation.

National regulations:**Technical instructions (air):****Class Share in %**

NK 50-100

VOC-CH 100.00 %

VOC-EU 641.0 g/l

Danish MAL Code 3-1

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant R-phrases

- 11 Highly flammable.
- 12 Extremely flammable.
- 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- 36 Irritating to eyes.
- 36/38 Irritating to eyes and skin.
- 38 Irritating to skin.
- 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 65 Harmful: may cause lung damage if swallowed.
- 66 Repeated exposure may cause skin dryness or cracking.
- 67 Vapours may cause drowsiness and dizziness.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent