

# Safety Data Sheet

## According to 1907/2006 EEC Article 31

Printing date 10.09.2008

Revision: 11.08.2008

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

- **Product details**
- **Trade name: XPS® Kart Tec Brake Cleaner**  
500 ml
- **Article number: 25315**
- **Application of the substance / the preparation** Cleaner solvent
- **Manufacturer/Supplier:**  
Petromark Automotive Chemicals BV  
P.O. Box 294  
NL-1940 AG Beverwijk  
The Netherlands  
Tel: +31(0)251-211397
- **Further information obtainable from:** Research & Development / r.tetteroo@petromark.nl
- **Information in case of emergency:**  
During normal opening hours:  
Tel: +31(0)251-211397

### 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. Keep away from sources of ignition - No smoking.

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.

Heptane is classified as R51/53 in SBP solvents

- **GHS label elements**



**Danger**

2.2/1 - Extremely flammable gas.

2.3/1 - Extremely flammable aerosol.



**Warning**

3.2/2 - Causes skin irritation.

3.8/3 - May cause drowsiness or dizziness.

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4.1/2 - Toxic to aquatic life with long lasting effects.

**Prevention:**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**

IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

Specific treatment (see label).

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

Eliminate all ignition sources if safe to do so.

Collect spillage.

**Storage:**

Store in a well-ventilated place.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

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

**Disposal:**

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:**

CAS: 142-82-5 EINECS: 205-563-8	heptane Xn, Xi, F, N; R 11-38-51/53-65-67 Danger: Flame 2.6/2; Health hazard 3.10/1 Warning: Exclamation mark 3.2/2, 3.8/3 Environment 4.1.C/2	25-<50%
CAS: 109-66-0 EINECS: 203-692-4	pentane Xn, F+, N; R 12-51/53-65-66-67 Danger: Flame 2.6/1; Health hazard 3.10/1 Warning: Exclamation mark 3.8/3 Environment 4.1.C/2	10-<25%
CAS: 106-97-8 EINECS: 203-448-7	butane F+; R 12 Danger: Flame 2.2/1 Warning: Gas cylinder 2.5/L	2.5-<10%

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CAS: 108-87-2 EINECS: 203-624-3	methylcyclohexane Xn, Xi, F, N; R 11-38-51/53-65-67 Danger: Flame 2.6/2; Health hazard 3.10/1 Warning: Exclamation mark 3.2/2, 3.8/3 Environment 4.1.C/2	2.5-<10%
CAS: 64-17-5 EINECS: 200-578-6	ethanol F; R 11 Danger: Flame 2.6/2	2.5-<10%
CAS: 74-98-6 EINECS: 200-827-9	propane F+; R 12 Danger: Flame 2.2/1 Warning: Gas cylinder 2.5/L	2.5-<10%
CAS: 110-82-7 EINECS: 203-806-2	cyclohexane 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.C/1; Exclamation mark 3.2/2, 3.8/3	2.5-<10%
CAS: 111-65-9 EINECS: 203-892-1	octane 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.C/1; Exclamation mark 3.2/2, 3.8/3	1.0-<2.5%
CAS: 110-54-3 EINECS: 203-777-6	n-hexane Xn, Xi, F, N; R 11-38-48/20-62-51/53-65-67 Danger: Flame 2.6/2; Health hazard 3.10/1, 3.7/2, 3.9/2 Warning: Exclamation mark 3.2/2, 3.8/3 Environment 4.1.C/2	1.0-<2.5%
CAS: 73513-42-5	Hexane, mixture of isomers (containing less than 5% n-hexane EEC no 203-777-6 Xn, Xi, F, N; R 11-38-51/53-65-67 Danger: Flame 2.6/2; Health hazard 3.10/1 Warning: Exclamation mark 3.2/2, 3.8/3 Environment 4.1.C/2	1.0-<2.5%
CAS: 67-56-1 EINECS: 200-659-6	methanol T, F; R 11-23/24/25-39/23/24/25 Danger: Flame 2.6/2; Skull and crossbones 3.1.O/2, 3.1.D/2, 3.1.I/2; Health hazard 3.8/1	0.1-<1.0%

**· Ingredients according to detergents guideline 648/2004/EC**

aliphatic hydrocarbons	≥ 30%
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**· Additional information:** For the wording of the listed risk phrases refer to section 16.

#### 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.
- **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

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- **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.
- **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:**

**142-82-5 heptane**

WEL | Long-term value: 500 ppm

**109-66-0 pentane**
WEL | Long-term value: 1800 mg/m<sup>3</sup>, 600 ppm
**106-97-8 butane**

 WEL | Short-term value: 1810 mg/m<sup>3</sup>, 750 ppm  
 Long-term value: 1450 mg/m<sup>3</sup>, 600 ppm  
 Carc (if more than 0.1% of buta-1,3-diene)

**64-17-5 ethanol**
WEL | Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm

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**74-98-6 propane**

WEL	Short-term value: 3600 mg/m <sup>3</sup> , 2000 ppm Long-term value: 1800 mg/m <sup>3</sup> , 1000 ppm
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**110-82-7 cyclohexane**

WEL	Short-term value: 1050 mg/m <sup>3</sup> , 300 ppm Long-term value: 350 mg/m <sup>3</sup> , 100 ppm
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**110-54-3 n-hexane**

WEL	Long-term value: 72 mg/m <sup>3</sup> , 20 ppm
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**67-56-1 methanol**

WEL	Short-term value: 333 mg/m <sup>3</sup> , 250 ppm Long-term value: 266 mg/m <sup>3</sup> , 200 ppm Sk
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· **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**

<b>Form:</b>	Aerosol
<b>Colour:</b>	According to product specification
<b>Odour:</b>	Characteristic

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· <b>Change in condition</b> Melting point/Melting range: Undetermined. Boiling point/Boiling range: -44°C
· <b>Flash point:</b> -97°C
· <b>Ignition temperature:</b> 215°C
· <b>Self-igniting:</b> Product is not selfigniting.
· <b>Danger of explosion:</b> Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Explosion limits:</b> Lower: 1.1 Vol % Upper: 7.8 Vol %
· <b>Vapour pressure at 20°C:</b> 573 hPa
· <b>Density at 20°C:</b> 0.669 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with water at 20°C:</b> 5 g/l
· <b>Solvent content:</b> Organic solvents: 99.8 %
· <b>Solids content:</b> 0.2 %

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **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:**

#### 110-82-7 cyclohexane

Oral	LD50	12705 mg/kg (rat)
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#### 73513-42-5 Hexane, mixture of isomers (containing less than 5% n-hexane EEC no 203-777-6

Oral	LD50	5000 mg/kg (mouse)
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Dermal	LD50	3000 mg/kg (rabbit)
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Inhalative	LC50/4 h	>10000 mg/l (rat)
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- **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

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### 12 Ecological information

· **Ecotoxicological effects:**

· **Aquatic toxicity:**

**142-82-5 heptane**

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

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

**109-66-0 pentane**

EC50/48h >5mg/l mg/l (Daphnia magna)

**108-87-2 methylcyclohexane**

LC50(48h) 5 mg/l (Fish)

**110-54-3 n-hexane**

EC50/48h >2 mg/l (Daphnia magna)

LC50/96h 2.5 mg/l (Fish)

· **Remark:** Toxic for fish

· **General notes:**

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

· **Description of goods:** 1950 AEROSOLS

· **Limited quantities (LQ)** LQ2

· **Transport category** 2

· **Tunnel restriction code** B1D

· **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

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- **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.
- 23 Do not breathe aerosol.
- 25 Avoid contact with eyes.
- 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. Keep away from sources of ignition - No smoking.

Buildup of explosive mixtures possible without sufficient ventilation.

- **National regulations:**

- **Technical instructions (air):**

Class	Share in %
I	1,0-<2,5
NK	50-100

- **VOC-CH** 100.00 %
- **VOC-EU** 669.0 g/l
- **Danish MAL Code** 4-3

### 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.

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- 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
- 38 Irritating to skin.
- 39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
- 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 62 Possible risk of impaired fertility.
- 65 Harmful: may cause lung damage if swallowed.
- 66 Repeated exposure may cause skin dryness or cracking.
- 67 Vapours may cause drowsiness and dizziness.

· **Department issuing MSDS:** Research & Development

· **Contact:** R. Tetteroo

· **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 internationale 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

· **Sources** st

GB