

Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

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

1.1. Product identifier

Code: 411 00 19540-6130
Product name: ANTI-WHISTLE FOR BRAKES

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

Intended use: Vehicle maintenance product

1.3. Details of the supplier of the safety data sheet

Name: Meccanocar Italia S.r.l.
Full address: Via San Francesco, 22
District and Country: 56033 Capannoli (PI)
Italy

Tel. +39 0587 609433

Fax +39 0587 607145

e-mail address of the competent person

responsible for the Safety Data Sheet: moreno.meini@meccanocar.it

1.4. Emergency telephone number

For urgent inquiries refer to: National Poisons Information Service: +44 121 507 4123

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Aerosol, category 1	H222 H229	Extremely flammable aerosol. Pressurised container: may burst if heated.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

ANTI-WHISTLE FOR BRAKES

Hazard pictograms:



Signal words:

Danger

Hazard statements:

H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P211	Do not spray on an open flame or other ignition source.
P331	Do NOT induce vomiting.
P301+P310	IF SWALLOWED: immediately call a POISON CENTER / doctor.

Contains:	PENTANO HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES
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2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES		
CAS -	$37,5 \leq x < 40$	Flam. Liq. 2 H225, Asp. Tox. 1 H304, STOT SE 3 H336, Aquatic Chronic 2 H411
EC 920-750-0		
INDEX -		
Reg. no. 01-2119473851-33-XXXX		
PENTANO		
CAS 109-66-0	$21 \leq x < 22,5$	Flam. Liq. 1 H224, Asp. Tox. 1 H304, STOT SE 3 H336, Aquatic Chronic 2 H411, EUH066
EC 203-692-4		
INDEX -		

ANTI-WHISTLE FOR BRAKES

Reg. no. 01-2119459286-30-XXXX

PROPANE

CAS 74-98-6

$16,5 \leq x < 18$

Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U

EC 200-827-9

INDEX 601-003-00-5

Reg. no. 01-2119486944-21-XXXX

BUTANE

CAS 106-97-8

$10,5 \leq x < 12$

Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: C U

EC 203-448-7

INDEX 601-004-00-0

Reg. no. 01-2119474691-32-XXXX

ISOBUTANE

CAS 75-28-5

$10,5 \leq x < 12$

Flam. Gas 1A H220, Press. Gas H280

EC 200-857-2

INDEX 601-004-00-0

Reg. no. 01-2119485395-27-XXXX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

The product is an aerosol containing propellants. For the purposes of calculation of the health hazards, propellants are not considered (unless they have health hazards). The percentages indicated are inclusive of the propellants.

Percentage of propellants: 40,00 %

SECTION 4. First aid measures**4.1. Description of first aid measures**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

SECTION 5. Firefighting measures**5.1. Extinguishing media****SUITABLE EXTINGUISHING EQUIPMENT**

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

ANTI-WHISTLE FOR BRAKES**UNSUITABLE EXTINGUISHING EQUIPMENT**

None in particular.

5.2. Special hazards arising from the substance or mixture**HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

If overheated, aerosol cans can deform, explode and be propelled considerable distances. Put a protective helmet on before approaching the fire. Do not breathe combustion products.

5.3. Advice for firefighters**GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Send away individuals who are not suitably equipped. Wear protective gloves / protective clothing / eye protection / face protection.

6.2. Environmental precautions

Do not disperse in the environment.

6.3. Methods and material for containment and cleaning up

Use inert absorbent material to soak up leaked product. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage**7.1. Precautions for safe handling**

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Do not eat, drink or smoke during use. Do not breathe spray.

7.2. Conditions for safe storage, including any incompatibilities

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

7.3. Specific end use(s)

ANTI-WHISTLE FOR BRAKES

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Third edition,published 2018)
NOR	TLV-ACGIH	ACGIH 2019
	RCP TLV	ACGIH TLVs and BEIs – Appendix H

HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				699 mg/kg bw/d				
Inhalation				608 mg/m3				2035 mg/m3
Skin				699 mg/kg bw/d				773 mg/kg bw/d

PENTANO

Predicted no-effect concentration - PNEC

Normal value in fresh water	23	mg/l
Normal value in marine water	23	mg/l
Normal value for fresh water sediment	1,2	mg/kg
Normal value for marine water sediment	1,2	mg/kg
Normal value of STP microorganisms	360	mg/l
Normal value for the terrestrial compartment	0,55	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				214 mg/kg bw/d				
Inhalation				643 mg/m3				3000 mg/m3
Skin				214 mg/kg bw/d				432 mg/kg bw/d

PROPANE

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
VLA	ESP		1000	
TLV	NOR	900	500	
TLV-ACGIH			1000	

ISOBUTANE

Threshold Limit Value

ANTI-WHISTLE FOR BRAKES

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
RCP TLV		1000		RESP

BUTANE**Threshold Limit Value**

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
VLA	ESP	1000		Gases
VLEP	FRA	1900	800	
WEL	GBR	1450	600	1810 750
TLV	NOR	600	250	
TLV-ACGIH			1000	

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

HAND PROTECTION

None required.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

ANTI-WHISTLE FOR BRAKES

Any specific glove information provided is based on published literature and glove manufacturer data. The suitability of the gloves and breakthrough time will differ according to the specific conditions of use. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for conditions of use. Inspect and replace worn or damaged gloves. The types of gloves to consider for this material include:

Chemical resistant gloves are recommended. If contact with forearms is likely, wear glove-style gloves. Nitrile, CEN EN 420 and EN 374 standards provide general requirements and lists of glove types.

PENTANO

Protezione respiratoria: se i controlli tecnici non mantengono le concentrazioni di contaminanti nell'aria a un livello adeguato per proteggere la salute dei lavoratori, può essere appropriato un respiratore approvato. La selezione, l'uso e la manutenzione del respiratore devono essere conformi ai requisiti normativi, se applicabile. I tipi di respiratori da considerare per questo materiale includono:

Respiratore con filtro a mezza faccia Materiale filtrante di tipo AX, le norme EN 136, 140 e 405 del Comitato europeo di standardizzazione (CEN) forniscono maschere respiratorie e EN 149 e 143 forniscono raccomandazioni sui filtri.

Protezione delle mani: qualsiasi informazione specifica sui guanti fornita si basa sulla letteratura pubblicata e sui dati dei produttori di guanti. L'idoneità dei guanti e il tempo di penetrazione differiranno a seconda delle condizioni d'uso specifiche. Contattare il produttore di guanti per consigli specifici sulla selezione dei guanti e sui tempi di passaggio per le condizioni d'uso. Ispezionare e sostituire i guanti usurati o danneggiati. I tipi di guanti da considerare per questo materiale includono:

Si raccomandano guanti resistenti ai prodotti chimici. Nitrile, norme CEN EN 420 e EN 374 forniscono requisiti generali ed elenchi di tipi di guanti.

Protezione degli occhi: se è possibile il contatto, si consiglia di indossare occhiali di sicurezza con protezioni laterali.

Protezione della pelle e del corpo: qualsiasi informazione specifica sull'abbigliamento fornita si basa sulla letteratura pubblicata o sui dati del produttore. I tipi di abbigliamento da considerare per questo materiale includono:

Si consiglia abbigliamento resistente agli agenti chimici / agli oli.

ISOBUTANE

Suitable glove material protective gloves, e.g. nitrile butadiene rubber gloves (NBR), leather gloves, heat insulating

Selection of protective gloves to meet specific workplace requirements.

Suitability for specific workplaces must be clarified with the manufacturers of protective gloves.

The information is based on our tests, references from literature and information from glove manufacturers or derived by analogy with similar materials.

Remember that the useful time per day of a chemical protection glove can be much shorter than the breakthrough time determined according to EN 374 due to the numerous influencing factors involved.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	aerosol
Colour	white
Odour	solvent
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	0,6 % (V/V)
Upper inflammability limit	8 % (V/V)
Lower explosive limit	Not available
Upper explosive limit	Not available

ANTI-WHISTLE FOR BRAKES

Vapour pressure	3500 hPa
Vapour density	Not available
Relative density	Not available
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

Total solids (250°C / 482°F)	10,00 %
VOC (Directive 2010/75/EC) :	86,00 %

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

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

PENTANO

Il materiale è stabile in condizioni normali.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

ISOBUTANE

Vapors can form an explosive mixture with air.

BUTANE

Vapors can form an explosive mixture with air.

10.4. Conditions to avoid

Avoid overheating.

HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

ANTI-WHISTLE FOR BRAKES

avoid heat, sparks, open flames and other sources of ignition.

PENTANO

Avoid heat, sparks, open flames and other sources of ignition.

ISOBUTANE

Keep away from heat and other causes of fire.

BUTANE

Avoid heat and sources of ignition.

10.5. Incompatible materials

Strong reducing or oxidising agents, strong acids or alkalis, hot material.

HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

strong oxidants

PENTANO

Strong oxidants.

ISOBUTANE

Strong oxidizing agents, chlorine, oxygen.

BUTANE

Strong oxidizing agents, chlorine, oxygen.

10.6. Hazardous decomposition products

PENTANO

Il materiale non si decompone a temperatura ambiente.

ISOBUTANE

ANTI-WHISTLE FOR BRAKES

In case of fire or production of thermal decomposition, for example, carbon monoxide, carbon dioxide (CO₂).

BUTANE

In case of fire or production of thermal decomposition, for example, carbon monoxide, carbon dioxide (CO₂).

SECTION 11. Toxicological information

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC₅₀ (Inhalation) of the mixture:

Not classified (no significant component)

LD₅₀ (Oral) of the mixture:

Not classified (no significant component)

LD₅₀ (Dermal) of the mixture:

Not classified (no significant component)

HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

Method: Not indicated

Reliability: 2

Species: Rat (Charles River CD; male / female)

Route of exposure: Oral

Results: LD₅₀ > 8 mL / kg bw

Method: Equivalent or similar to OECD Guideline 403

Reliability: 2

Species: Rat (Wistar; male / female)

Route of exposure: Inhalation (vapors)

Results: LC₅₀ > 23.3 mg / L air

Method: Not indicated

Reliability: 2

Species: Rat (Charles River CD; male / female)

Route of exposure: Dermal

Results: LD₅₀ > 4 mL / kg bw

ANTI-WHISTLE FOR BRAKES

PENTANO

Metodo: OECD 401

Affidabilità: 1

Specie: Ratto (Crl:CDBR; maschio/femmina)

Via d'esposizione: Orale

Risultati: LD50>2000 mg/kg bw

Metodo: Non indicato

Affidabilità: 2

Specie: Ratto (Wistar; maschio), topo (Albino; femmina)

Via d'esposizione: Inalazione (vapori)

Risultati: 21000 ppm (maschio), 23500 ppm (femmina)

PROPANE

Method: To study the concentrations at which the effects of the CNS occur following exposure by inhalation to propane by measuring LC50 (15 min) and EC50 (CNS) (10 min) in rats.

Reliability: 2

Species: Rat (Alderley Park (SPF); male / female)

Route of exposure: Inhalation

Results: LC50> 800 000 ppm

BUTANE

Method: Not indicated

Reliability: 2

Species: Rat (Alderley Park (SPF); male / female)

Route of exposure: Inhalation

Results: LC50: 1 443 mg / L air

SKIN CORROSION / IRRITATION

Repeated exposure may cause skin dryness or cracking.

HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

Method: OECD Guideline 404

Reliability: 1

Species: Rabbit (New Zealand White)

Route of exposure: Dermal

Results: Not irritating

PENTANO

Metodo: Equivalente o similare a OECD 404

Affidabilità: 1

Specie: Coniglio (New Zealand White)

Via d'esposizione: Cutanea

Risultati: Non classificato

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

Method: Not indicated

Reliability: 2

ANTI-WHISTLE FOR BRAKES

Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Not irritating

PENTANO

Method: OECD 405
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Not irritating

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

Skin sensitization
HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

Method: Equivalent or similar to OECD Guideline 406
Reliability: 2
Species: guinea pig (male / female)
Route of exposure: Dermal
Results: Not sensitizing

PENTANO

Metodo: Equivalente o similare a OECD 406
Affidabilità: 1
Specie: Porcellino d'india (Hartley; femmina)
Via d'esposizione: Cutanea
Risultati: Non sensibilizzante

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

Method: Equivalent or similar to OECD Guideline 471-in vitro test
Reliability: 1
Species: S. typhimurium, E.Coli
Results: Negative with and without metabolic activation
Method: Equivalent or similar to OECD Guideline 474-test in vivo
Reliability: 1
Species: Mouse (CD-1; male)
Route of exposure: Oral
Results: Negative

PENTANO

Metodo: EU Method B.10-Test in vitro
Affidabilità: 1
Specie: Criceto cinese
Risultati: Negativo con e senza attivazione metabolica
Metodo: EU Method B.12-Test in vivo
Affidabilità: 1
Specie: Ratto (CrI:CDBR; maschio/femmina)
Via d'esposizione: Inalazione (vapori)
Risultati: Negativo

ANTI-WHISTLE FOR BRAKES

PROPANE

Method: OECD 471 in vitro test

Reliability: 1

Species: Histidine Salmonella

Results: Negative with or without metabolic activation

Method: OECD 474-test in vivo

Reliability: 1

Species: Rat (Sprague-Dawley CD; male / female)

Route of exposure: Inhalation (gas)

Results: Negative

BUTANE

Method: OECD 471 in vitro test

Reliability: 1

Species: Salmonella strains, S. typhimurium

Results: Negative without metabolic activation

Method: OECD 474-test in vivo

Reliability: 1

Species: Rat (Sprague-Dawley CD; male / female)

Route of exposure: Inhalation (gas)

Results: Negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

BUTANE

Method: OECD 413

Reliability: 1

Species: Rat (Sprague-Dawley CD; male / female)

Route of exposure: Inhalation

Results: NOAEC 10000 ppm

Adverse effects on sexual function and fertility

HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

Method: Equivalent or similar to OECD Guideline 416

Reliability: 1

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Inhalation (vapors)

Results: NOAEL 31 680 mg / m³ air

PENTANO

Metodo: OECD 415-Read across

Affidabilità: 1

Specie: Ratto (Sprague-Dawley; maschio/femmina)

Via d'esposizione: Orale

Risultati: NOAEL (fertilità)=300 mg/kg bw/day

PROPANE

ANTI-WHISTLE FOR BRAKES

Method: OECD 413

Reliability: 1

Species: Rat (Sprague-Dawley CD; male / female)

Route of exposure: Inhalation

Results: NOAEC (fertility) 10 000 ppm

Adverse effects on development of the offspring

HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

Method: Food and Drug Administration 1966 "Guidelines for Reproduction Studies for Safety Evaluation of Drugs for Human Use", Segment II (Teratology Study).

Reliability: 2

Species: Rat (CD (SD))

Route of exposure: Inhalation (vapors)

Results: NOAEC 1 200 ppm

PENTANO

Metodo: OECD 414

Affidabilità: 1

Specie: Ratto (CrI:CD BR VAF/Plus)

Via d'esposizione: Orale

Risultati: NOAEL (sviluppo)=1000 mg/kg bw/day

PROPANE

Method: EPA OPPTS 870.3700

Reliability: 1

Species: Rat (VAF / Plus®, Sprague-Dawley Derived (CD®) CrI: CD® IGS BR)

Route of exposure: Inhalation (gas)

Results: NOAEC (development) 10 426 ppm

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

Based on available data and through expert judgment, the substance is classified in the target organ toxicity class for single exposure.

PENTANO

Based on available data and through expert judgment, the substance is classified in the target organ toxicity class for single exposure.

PROPANE

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

ISOBUTANE

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

BUTANE

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

ANTI-WHISTLE FOR BRAKES

Target organ
HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

Central nervous system

PENTANO

Narcosis

Route of exposure
HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

Inhalation

PENTANO

Inhalation

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

Method: Equivalent or similar to OECD Guideline 413

Reliability: 2

Species: Rat (Albino Harlan-Wistar; male)

Route of exposure: Inhalation (vapors)

Results: NOAEC 5 800 mg / m³ air

PENTANO

Metodo: OECD 413

Affidabilità: 1

Specie: Ratto (CrI: CDBR; maschio/femmina)

Via d'esposizione: Inalazione (gas)

Risultati: NOAEC=20000 mg/m³ air

PROPANE

Method: OECD 422

Reliability: 1

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Inhalation (gas)

Results: NOAEC 16 000 ppm

ISOBUTANE

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for prolonged or repeated exposure.

BUTANE

Method: OECD 413

Reliability: 1

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Inhalation (gas)

Results: NOAEC = 10000 ppm

ANTI-WHISTLE FOR BRAKES

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

PENTANO

EC50 - for Crustacea

2,7 mg/l/48h

12.2. Persistence and degradability

HYDROCARBONS, C7-C9, N-ALCANS, ISOALKANS, CYCLES

Quickly biodegradable, 98% in 28 days.

PENTANO

Facilmente degradabile in acqua, 87% in 28 giorni.

BUTANE

Quickly degradable in water.

BUTANE

Solubility in water

0,1 - 100 mg/l

Rapidly degradable

PROPANE

Solubility in water

0,1 - 100 mg/l

Rapidly degradable

12.3. Bioaccumulative potential

BUTANE

Partition coefficient: n-octanol/water

1,09

PROPANE

Partition coefficient: n-octanol/water

1,09

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations**13.1. Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

PENTANO

The product is suitable for combustion in a closed controlled burner for the value or disposal of the fuel by supervised incineration at very high temperatures to prevent the formation of undesirable combustion products.

ISOBUTANE

Compliance with local regulations, e.g. incineration through flaring system.

No waste key number according to the European list of waste types can be assigned to this product, since this classification is based on the use (not yet determined) for which the product is intended for the consumer.

The key number for the waste must be determined according to the European waste type list (decision on the EU waste type list 2000/532 / EC) in collaboration with the disposal company / producer / authority Official.

BUTANE

No waste key number according to the European list of waste types can be assigned to this product, since this classification is based on the use (not yet determined) for which the product is intended for the consumer.

The key number for the waste must be determined according to the European waste type list (decision on the EU waste type list 2000/532 / EC) in collaboration with the disposal company / producer / authority Official.

SECTION 14. Transport information**14.1. UN number**

ADR / RID, IMDG, 1950
IATA:

14.2. UN proper shipping name

ADR / RID: AEROSOLS
IMDG: AEROSOLS
IATA: AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

ADR / RID: Class: 2 Label: 2.1

IMDG: Class: 2 Label: 2.1

IATA: Class: 2 Label: 2.1

**14.4. Packing group**

ANTI-WHISTLE FOR BRAKES

ADR / RID, IMDG, -
IATA:

14.5. Environmental hazards

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: --	Limited Quantities: 1 L	Tunnel restriction code: (D)
IMDG:	Special Provision: - EMS: F-D, S-U	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 150 Kg	Packaging instructions: 203
	Pass.:	Maximum quantity: 75 Kg	Packaging instructions: 203
	Special Instructions:	A145, A167, A802	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Seveso Category - Directive 2012/18/EC: P3a-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

ANTI-WHISTLE FOR BRAKES

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Gas 1A	Flammable gas, category 1A
Aerosol 1	Aerosol, category 1
Aerosol 3	Aerosol, category 3
Flam. Liq. 1	Flammable liquid, category 1
Flam. Liq. 2	Flammable liquid, category 2
Press. Gas (Liq.)	Liquefied gas
Press. Gas	Pressurised gas
Asp. Tox. 1	Aspiration hazard, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may burst if heated.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008

ANTI-WHISTLE FOR BRAKES

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

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2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
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4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
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11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
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- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Product's classification is based on the calculation methods set out in Annex I of the CLP Regulation, unless otherwise indicated in sections 11 and 12.

The data for evaluation of chemical-physical properties are reported in section 9.

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 04 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16.