

HHS 2000 500ml

Version 3.2 Revision Date: 06.11.2015 SDS Number: 310724-00003 Date of last issue: 20.10.2015
Date of first issue: 21.12.2009

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

1.1 Product identifier

Trade name : HHS 2000 500ml
Product code : 0893 106

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

Use of the Substance/Mixture : Polishing agent and lubricant

1.3 Details of the supplier of the safety data sheet

Company : Würth UK Ltd
1 Centurion Way
Erith, Kent

Telephone : +44 (0)3300 555 444

Telefax : +44 (0)3300 555 666

E-mail address of person responsible for the SDS : prodsafe@wuerth.com

1.4 Emergency telephone number

+44 (0)870 190 6777

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Aerosols, Category 1	H222: Extremely flammable aerosol. H229: Pressurised container: May burst if heated.
Skin irritation, Category 2	H315: Causes skin irritation.
Specific target organ toxicity - single exposure, Category 3	H336: May cause drowsiness or dizziness.
Chronic aquatic toxicity, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

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Hazard statements	:	H222 H229 H315 H336 H411	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.
Precautionary statements	:	Prevention: P210 P211 P251 P261 P273 Storage: P410 + P412	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid breathing spray. Avoid release to the environment. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Hazardous components which must be listed on the label:
Hydrocarbons, C6, isoalkanes, <5% n-hexane

2.3 Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
Hydrocarbons, C6, isoalkanes, <5% n-hexane	Not Assigned 01-2119484651-34	Flam. Liq. 2; H225 Skin Irrit. 2; H315 STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 30 - < 50
n-Pentane	109-66-0 203-692-4	Flam. Liq. 2; H225 STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 2.5 - < 10

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n-Hexane	110-54-3 203-777-6	Flam. Liq. 2; H225 Skin Irrit. 2; H315 Repr. 2; H361fd STOT SE 3; H336 STOT RE 2; H373 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	$\geq 1 - < 2.5$
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SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.
- Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.
- If inhaled : If inhaled, remove to fresh air.
Get medical attention.
- In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
- In case of eye contact : Flush eyes with water as a precaution.
Get medical attention if irritation develops and persists.
- If swallowed : If swallowed, DO NOT induce vomiting.
Get medical attention.
Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

- Risks : Causes skin irritation.
May cause drowsiness or dizziness.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO₂)

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Dry chemical

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Flash back possible over considerable distance.
Vapours may form explosive mixtures with air.
Exposure to combustion products may be a hazard to health.
If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.

Hazardous combustion products : Carbon oxides

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Remove all sources of ignition.
Use personal protective equipment.
Follow safe handling advice and personal protective equipment recommendations.

6.2 Environmental precautions

Environmental precautions : Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Non-sparking tools should be used.
Soak up with inert absorbent material.
Suppress (knock down) gases/vapours/mists with a water spray jet.
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can

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be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent.

Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.

Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- | | | |
|---|---|--|
| Technical measures | : | See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section. |
| Local/Total ventilation | : | Use with local exhaust ventilation.
Use only in an area equipped with explosion proof exhaust ventilation. |
| Advice on safe handling | : | Do not get on skin or clothing.
Do not breathe vapours or spray mist.
Do not swallow.
Avoid contact with eyes.
Handle in accordance with good industrial hygiene and safety practice.
Keep away from heat and sources of ignition.
Take precautionary measures against static discharges.
Take care to prevent spills, waste and minimize release to the environment. |
| Advice on protection against fire and explosion | : | Vapours may form explosive mixtures with air. |
| Hygiene measures | : | Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use. |

7.2 Conditions for safe storage, including any incompatibilities

- | | | |
|---|---|--|
| Requirements for storage areas and containers | : | Keep in properly labelled containers. Store locked up. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Do not pierce or burn, even after use. Keep cool. Protect from sunlight. |
| Advice on common storage | : | Keep away from food, drink and animal feedingstuffs.
Do not store together with oxidizing and self-igniting products.
To be observed: TRGS 510 |

Do not store with the following product types:
Self-reactive substances and mixtures

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Organic peroxides
Oxidizing agents
Flammable solids
Pyrophoric liquids
Pyrophoric solids
Self-heating substances and mixtures
Substances and mixtures, which in contact with water, emit flammable gases
Explosives

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
n-Pentane	109-66-0	TWA	1,000 ppm 3,000 mg/m ³	2006/15/EC
Further information	Indicative			
		TWA	600 ppm 1,800 mg/m ³	GB EH40
Further information	Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used			
n-Hexane	110-54-3	TWA	20 ppm 72 mg/m ³	2006/15/EC
Further information	Indicative			
		TWA	20 ppm 72 mg/m ³	GB EH40
Further information	Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Hydrocarbons, C6, isoalkanes, <5% n-hexane	Workers	Inhalation	Long-term systemic effects	5306 mg/m ³
	Workers	Skin contact	Long-term systemic effects	13964 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	1131 mg/m ³
	Consumers	Skin contact	Long-term systemic	1377 mg/kg

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			effects	bw/day
	Consumers	Skin contact	Long-term systemic effects	1301 mg/kg bw/day
n-Pentane	Workers	Inhalation	Long-term systemic effects	3000 mg/m ³
	Workers	Skin contact	Long-term systemic effects	432 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	643 mg/m ³
	Consumers	Skin contact	Long-term systemic effects	214 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	214 mg/kg bw/day
Benzene, mono-C10-13-alkyl derivs., distn. residues	Workers	Skin contact	Long-term systemic effects	96 mg/kg bw/day
n-Hexane	Workers	Skin contact	Long-term systemic effects	11 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects	75 mg/m ³
	Consumers	Skin contact	Long-term systemic effects	5.3 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	16 mg/m ³
	Consumers	Ingestion	Long-term systemic effects	4 mg/kg bw/day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Residual oils (petroleum), hydrotreated	Oral	9.33 mg/kg
n-Pentane	Fresh water	0.23 mg/l
	Marine water	0.23 mg/l
	Intermittent use/release	0.88 mg/l
	Sewage treatment plant	3.6 mg/l
	Fresh water sediment	1.2 mg/kg
	Marine sediment	1.2 mg/kg
Benzene, mono-C10-13-alkyl derivs., distn. residues	Soil	0.55 mg/kg
	Fresh water	0.000075 mg/l
	Marine water	0.000007 mg/l

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	Intermittent use/release	0.001 mg/l
	Sewage treatment plant	2 mg/l
	Fresh water sediment	1761 mg/kg
	Marine sediment	1761 mg/kg

8.2 Exposure controls

Engineering measures

Minimize workplace exposure concentrations.
Use only in an area equipped with explosion proof exhaust ventilation.
Use with local exhaust ventilation.

Personal protective equipment

- Eye protection : Wear the following personal protective equipment:
Safety glasses
- Hand protection
Material : Nitrile rubber
Break through time : 480 min
Glove thickness : 0.45 mm
- Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.
- Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Wear the following personal protective equipment:
Flame retardant antistatic protective clothing.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).
- Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
- Filter type : Self-contained breathing apparatus

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance : Aerosol containing a liquefied gas
- Propellant : Isobutane, Propane, Butane
- Colour : brown
- Odour : solvent-like

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Odour Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: Not applicable
Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: Extremely flammable aerosol.
Upper explosion limit	: 11.0 %(V)
Lower explosion limit	: 1.0 %(V)
Vapour pressure	: Not applicable
Relative vapour density	: Not applicable
Density	: 0.742 g/cm ³ (20 °C)
Solubility(ies)	
Water solubility	: insoluble
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: 200 °C
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

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10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Extremely flammable aerosol.
Vapours may form explosive mixture with air.
If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.
Can react with strong oxidizing agents.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Information on likely routes of exposure : Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:

Acute oral toxicity : LD50 (Rat): 16,750 mg/kg
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): 259.354 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 3,350 mg/kg
Remarks: Based on data from similar materials

n-Pentane:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 401
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat): > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour

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Assessment: The substance or mixture has no acute inhalation toxicity

n-Hexane:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 31.86 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:

Species: Rabbit
Method: OECD Test Guideline 404
Result: Skin irritation

n-Pentane:

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

n-Hexane:

Species: Rabbit
Result: Skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:

Species: Rabbit
Result: No eye irritation
Remarks: Based on data from similar materials

n-Pentane:

Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation

n-Hexane:

Species: Rabbit
Result: No eye irritation

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Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:

Test Type: Local lymph node assay (LLNA)
Exposure routes: Skin contact
Species: Mouse
Result: negative
Remarks: Based on data from similar materials

n-Pentane:

Exposure routes: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative

n-Hexane:

Test Type: Local lymph node assay (LLNA)
Exposure routes: Skin contact
Species: Mouse
Result: negative

Germ cell mutagenicity

Not classified based on available information.

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on data from similar materials

: Test Type: Chromosome aberration test in vitro
Result: negative
Remarks: Based on data from similar materials

: Test Type: In vitro mammalian cell gene mutation test
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow
cytogenetic test, chromosomal analysis)
Species: Rat
Application Route: inhalation (vapour)
Result: negative

n-Pentane:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo
cytogenetic assay)
Species: Rat

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Application Route: inhalation (vapour)
Result: negative

n-Hexane:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

: Test Type: In vitro mammalian cell gene mutation test
Result: positive

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Species: Mouse
Application Route: inhalation (vapour)
Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:

Species: Rat
Application Route: inhalation (vapour)
Exposure time: 2 yr
Result: negative
Remarks: Based on data from similar materials

Species: Mouse
Application Route: inhalation (vapour)
Exposure time: 2 yr
Result: negative
Remarks: Based on data from similar materials

n-Hexane:

Species: Rat
Application Route: inhalation (vapour)
Exposure time: 2 Years
Method: OECD Test Guideline 451
Result: negative

Reproductive toxicity

Not classified based on available information.

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: inhalation (vapour)
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: inhalation (vapour)

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Result: negative
Remarks: Based on data from similar materials

n-Pentane:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: inhalation (vapour)
Method: OECD Test Guideline 416
Result: negative
Remarks: Based on data from similar materials

n-Hexane:

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, based on animal experiments., Some evidence of adverse effects on development, based on animal experiments.

STOT - single exposure

May cause drowsiness or dizziness.

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:

Assessment: May cause drowsiness or dizziness.

n-Pentane:

Assessment: May cause drowsiness or dizziness.

n-Hexane:

Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Components:

n-Hexane:

Target Organs: Central nervous system

Assessment: May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:

Species: Rat, male

NOAEL: 10.504 mg/l

Application Route: inhalation (vapour)

Exposure time: 90 Days

Remarks: Based on data from similar materials

n-Pentane:

Species: Rat

NOAEL: > 20.5 mg/l

Application Route: inhalation (vapour)

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Exposure time: 13 Weeks
Method: OECD Test Guideline 413

n-Hexane:

Species: Rat
LOAEL: 10.6 mg/l
Application Route: inhalation (vapour)
Exposure time: 16 Weeks

Aspiration toxicity

Not classified based on available information.

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:

May be fatal if swallowed and enters airways.

n-Pentane:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

n-Hexane:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Experience with human exposure

Components:

n-Hexane:

Inhalation : Target Organs: Central nervous system

SECTION 12: Ecological information

12.1 Toxicity

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): > 10 - 100 mg/l
Exposure time: 96 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 1 - 10 mg/l
Exposure time: 48 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 202
Remarks: Based on data from similar materials

Toxicity to algae : EL50 (Selenastrum capricornutum (green algae)): > 10 - 100 mg/l
Exposure time: 72 h
Test substance: Water Accommodated Fraction

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Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

NOELR (Selenastrum capricornutum (green algae)): 0.1 mg/l
Exposure time: 72 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR: > 0.1 - 1 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211
Remarks: Based on data from similar materials

n-Pentane:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 4.26 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2.7 mg/l
Exposure time: 48 h

Toxicity to algae : ErC50 (Scenedesmus quadricauda (Green algae)): 10.7 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Ecotoxicology Assessment
Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

n-Hexane:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 2.5 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 3.88 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 55 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

12.2 Persistence and degradability

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:

Biodegradability : Result: Readily biodegradable
Biodegradation: 98 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Based on data from similar materials

n-Pentane:

Biodegradability : Result: Readily biodegradable

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Biodegradation: 87 %
Exposure time: 28 d

n-Hexane:

Biodegradability : Result: Readily biodegradable
Biodegradation: 98 %
Exposure time: 28 d
Remarks: Based on data from similar materials

12.3 Bioaccumulative potential

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:

Partition coefficient: n- : log Pow: 3.6
octanol/water

n-Pentane:

Partition coefficient: n- : log Pow: 3.45
octanol/water

n-Hexane:

Partition coefficient: n- : log Pow: 4
octanol/water

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Not relevant

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not burn.
If not otherwise specified: Dispose of as unused product.
Please ensure aerosol cans are sprayed completely empty (including propellant)

Waste Code : The following Waste Codes are only suggestions:

used product
160504, gases in pressure containers (including halons) con-

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taining dangerous substances

unused product
160504, gases in pressure containers (including halons) containing dangerous substances

uncleaned packagings
150110, packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

14.1 UN number

ADN : UN 1950
ADR : UN 1950
RID : UN 1950
IMDG : UN 1950
IATA : UN 1950

14.2 UN proper shipping name

ADN : AEROSOLS
ADR : AEROSOLS
RID : AEROSOLS
IMDG : AEROSOLS
(Hydrocarbons, C6, isoalkanes, <5% n-hexane)
IATA : Aerosols, flammable

14.3 Transport hazard class(es)

ADN : 2.1
ADR : 2.1
RID : 2.1
IMDG : 2.1
IATA : 2.1

14.4 Packing group

ADN
Packing group : Not assigned by regulation
Classification Code : 5F
Labels : 2.1
ADR
Packing group : Not assigned by regulation
Classification Code : 5F
Labels : 2.1
Tunnel restriction code : (D)

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RID

Packing group : Not assigned by regulation
Classification Code : 5F
Hazard Identification Number : 23
Labels : 2.1

IMDG

Packing group : Not assigned by regulation
Labels : 2.1
EmS Code : F-D, S-U

IATA (Cargo)

Packing instruction (cargo aircraft) : 203
Packing instruction (LQ) : Y203
Packing group : Not assigned by regulation
Labels : Flammable Gas

IATA (Passenger)

Packing instruction (passenger aircraft) : 203
Packing instruction (LQ) : Y203
Packing group : Not assigned by regulation
Labels : Flammable Gas

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks : Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

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Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
P3a	FLAMMABLE AEROSOLS	150 t	500 t
E2	ENVIRONMENTAL HAZARDS	200 t	500 t
34	Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d)	2,500 t	25,000 t
18	Liquefied extremely flammable gases (including LPG) and natural gas	50 t	200 t

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 72.92 %, 485.6 g/l
Remarks: VOC content excluding water

Other regulations : Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

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SECTION 16: Other information

Full text of H-Statements

- H225 : Highly flammable liquid and vapour.
- H304 : May be fatal if swallowed and enters airways.
- H315 : Causes skin irritation.
- H336 : May cause drowsiness or dizziness.
- H361fd : Suspected of damaging fertility. Suspected of damaging the unborn child.
- H373 : May cause damage to organs through prolonged or repeated exposure.
- H411 : Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

- Aquatic Chronic : Chronic aquatic toxicity
- Asp. Tox. : Aspiration hazard
- Flam. Liq. : Flammable liquids
- Repr. : Reproductive toxicity
- Skin Irrit. : Skin irritation
- STOT RE : Specific target organ toxicity - repeated exposure
- STOT SE : Specific target organ toxicity - single exposure
- 2006/15/EC : Europe. Indicative occupational exposure limit values
- GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
- 2006/15/EC / TWA : Limit Value - eight hours
- GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International

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Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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