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

· 1.1 Product identifier

· Trade name: Battery pole protection spray

· Article number: 1405090

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

No further relevant information available.

• Application of the substance / the mixture Preservative

· 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

DKS Technik GmbH Gnadenwald 90a A-6069 Gnadenwald Tel.: +43 (0) 5223 48488

Fax.: +43 (0) 522348488-50 www.dks.at

Further information obtainable from:

E-Mail: office@dks.at Tel.: +43 (0)522348488

1.4 Emergency telephone number: Tel.: +43(0)1 406 4343

Monday - Thursday from 8.00 a.m. - 5.00 p.m. and Friday from 8.00 a.m. - 1.00 p.m.

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS02 flame

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated. Flam. Aerosol 1



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways. Asp. Tox. 1

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xi; Irritant

Irritating to skin.

F+; *Extremely flammable*

R12: Extremely flammable.

N; Dangerous for the environment

R51/53:

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

R67: Vapours may cause drowsiness and dizziness.

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· 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.

Harmful: may cause lung damage if swallowed.

· Classification system:

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

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms







GHS07

· Signal word Danger

· Hazard-determining components of labelling:

Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, < 5 % n-hexane

· Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

Toxic to aquatic life with long lasting effects. H411

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P261 Avoid breathing vapours or spray.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves.

P312 Call a POISON CENTER/doctor if you feel unwell.

P391 Collect spillage.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Dispose of contents/container to hazardous or special waste collection point.

· Additional information:

Buildup of explosive mixtures possible without sufficient ventilation.

- · 2.3 Other hazards
- Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.
- · Dangerous components:

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EC number: 927-510-4	Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes	ntd. of page 2 20-25%
Reg.nr.: 01-2119475515-33-xxxx	Xn R65; Xi R38; FR11; NR51/53 R67	
	♠ Flam. Liq. 2, H225; ♦ Asp. Tox. 1, H304; ♦ Aquatic Chronic 2, H411; ♦ Skin Irrit. 2, H315; STOT SE 3, H336	
EC number: 921-024-6	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, < 5	20-25%
Reg.nr.: 01-2119475514-35-xxxx	% n-hexane	
	Xn R65; Xi R38; F R11; N R51/53 R67	
	♠ Flam. Liq. 2, H225; ♦ Asp. Tox. 1, H304; ♦ Aquatic Chronic 2, H411; ♦ Skin Irrit. 2, H315; STOT SE 3, H336	
CAS: 75-28-5	isobutane	10-20%
EINECS: 200-857-2	F+ R12	
	\delta Flam. Gas 1, H220; ♦ Press. Gas, H280	-
CAS: 74-98-6	propane	2.5-10%
EINECS: 200-827-9	F+R12	
	🍖 Flam. Gas 1, H220; ♦ Press. Gas, H280	
CAS: 106-97-8	butane	1.0-2.5%
EINECS: 203-448-7	F+R12	
	₹ Flam. Gas 1, H220; ♦ Press. Gas, H280	1

[·] Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · After inhalation:

Supply fresh air; consult doctor in case of complaints.

Take affected persons into fresh air and keep quiet.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Immediately remove any clothing soiled by the product.

· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: Do not induce vomiting; call for medical help immediately.
- · 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- Suitable extinguishing agents:

Foam

Fire-extinguishing powder

Carbon dioxide

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · 5.2 Special hazards arising from the substance or mixture

Can form explosive gas-air mixtures.

Formation of toxic gases is possible during heating or in case of fire.

- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.
- Additional information

Cool endangered receptacles with water spray.

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(Contd. of page 3)

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources.

· 6.2 Environmental precautions:

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.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

• **6.4 Reference to other sections** See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Avoid contact with skin and eyes.

· Information about fire - and explosion protection:

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.

Do not spray onto a naked flame or any incandescent material.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · 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: Not required.
- · Further information about storage conditions: Protect from heat and direct sunlight.
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

106-97-8 butane

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)

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · 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.

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(Contd. of page 4)

Do not inhale gases / fumes / aerosols. Avoid contact with the eyes and skin.

- Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.
- · Recommended filter device for short term use: Filter AX
- Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Material of gloves

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.45 mm

Penetration time of glove material

 $>240 \, mir$

The exact break trough 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:** Protective work clothing

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Aerosol
Colour: Blue
Odour: Petrol-like

· Change in condition

Melting point/Melting range: Undetermined. **Boiling point/Boiling range:** < 0 °C

· Flash point: Not applicable, as aerosol.

• Ignition temperature: >200 °C

• Danger of explosion: Product is not explosive. However, formation of explosive air/vapour

mixtures are possible.

• **Density at 20** °**C**: 0.6978 g/cm^3

· Solubility in / Miscibility with

water: Not miscible or difficult to mix.

 Organic solvents:
 71.3 %

 VOC (EC)
 497.8 g/l

• 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.

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- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products:

Aldehyde

Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes

- · 11.1 Information on toxicological effects
- · Acute toxicity:

· LD/LC50 values	relevant for	classification:
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Oral LD50 >5840 mg/kg (rat) Dermal LD50 >2920 mg/kg (rat) Inhalative LC50/4 h >23300 mg/l (rat)

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, < 5 % n-hexane

Oral	LD50	>5840 mg/kg (rat)
Dermal	LD50	>2920 mg/kg (rat)
Inhalative	LC50/4 h	<25.2 mg/l (rat)

75-28-5 isobutane

Inhalative LC50/4 h >50 mg/l (rat)

74-98-6 propane

Inhalative LC50/4 h 20 mg/l (rat)

106-97-8 butane

Inhalative LC50/4 h 658 mg/l (rat)

- 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

Vapours have narcotic effect.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity:

Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes

EC50/48 h | 3 mg/l (daphnia)

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, < 5 % n-hexane

EC50/48 h | 3 mg/l (daphnia)

- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Toxic for fish
- $\cdot Additional\ ecological\ information:$
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

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Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- Recommendation

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

· European waste catalogue

16 05 04 gases in pressure containers (including halons) containing dangerous substances

15 01 04 metallic packaging

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

14.1 UN-Number	
ADR, IMDG, IATA	UN1950
14.2 UN proper shipping name	
ADR	1950 AEROSOLS
IMDG	AEROSOLS
IATA	AEROSOLS, flammable
14.3 Transport hazard class(es)	
ADR	
Class	2 5F Gases.
Label	2.1
IMDG	
Class	2.1
Label	2.1
IATA	

Class	2.1
Label	2.1

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	(Contd. of page
14.4 Packing group	
ADR, IMDG, IATA	Void
14.5 Environmental hazards:	Product contains environmentally hazardous substances
	Naphtha (petroleum), hydrotreated light
Marine pollutant:	Yes
•	Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
14.6 Special precautions for user	Warning: Gases.
Danger code (Kemler):	-
EMS Number:	F- D , S - U
14.7 Transport in bulk according to Anne	x II of
MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	1L
Transport category	2
Tunnel restriction code	D
UN "Model Regulation":	UN1950, AEROSOLS, 2.1

SECTION 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 phrases

- H220 Extremely flammable gas.
- H225 Highly flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H336 May cause drowsiness or dizziness.
- H411 Toxic to aquatic life with long lasting effects.
- R11 Highly flammable.
- R12 Extremely flammable.
- R38 Irritating to skin.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R65 Harmful: may cause lung damage if swallowed.
- R67 Vapours may cause drowsiness and dizziness.

· Abbreviations and acronyms:

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

ICAO: International Civil Aviation Organization

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

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LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

* Data compared to the previous version altered.