Printing date 22.03.2018 Version: 3 Revision: 22.03.2018

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

- · 1.1 Product identifier
- · Trade name: DNS AERO
- · Article number: 97550001
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Sector of Use

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

SU4 Manufacture of food products

Product category

PC15 Non-metal-surface treatment products PC24 Lubricants, greases, release products

- · Application of the substance / the mixture Lubricant
- · 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

ZEP ŬK Ltd

Tanhouse Lane

Widnes Cheshire, WA8 0RR

United Kingdom

Tel: +44 (0)151 422 1000 Fax: +44 (0)151 422 1011 @: info@zep.co.uk web: www.zep.co.uk

ZEP Industries BV

Vierlinghweg 30

4612 PN Bergen op Zoom

The Netherlands

Tel: (NL) + 31 164 250 100 (B) + 32 2 347 0117 Fax:(NL) + 31 164 266 710 (B) + 32 2 347 1395

@: sales@zepbenelux.com

ZEP ITALIA SRL

Via Netunese Km. 25.000

04011 Aprilia (LT) - Italy

Tel: +39.06.926691

Fax: +39.06.92747061

@: tecnico@zepeurope.com

Sito: www.zep.it

Further information obtainable from:

Customer Service

NL: Tel: +31 164 250 100 Fax: +31 164 266 710 B: Tel: +32 2 347 0117 Fax: +32 2 347 1395 IT: Tel: +39 069 266 91Fax: +39 06.927 470 61 UK: Tel: +44 151 422 1000 Fax: +44 151 422 1011

· 1.4 Emergency telephone number:

Customer Service

NL: Tel: + 31 164 250 100 Fax: + 31 164 266 710 B: Tel: +32 2 347 0117 Fax: +32 2 347 1395 IT: Tel: +39 069 266 91Fax: +39 06.927 470 61 UK: Tel: +44 151 422 1000 Fax: +44 151 422 1011

SECTION 2: Hazards identification

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

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

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

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

(Contd. on page 2)

(Contd. of page 1)

Safety data sheet According to 1907/2006/EC, Article 31 REACH

Printing date 22.03.2018 Version: 3 Revision: 22.03.2018

Trade name: DNS AERO

· Hazard pictograms



GHS02

- · Signal word Danger
- · Hazard statements

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

· Precautionary statements

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 spray.

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

- 2.3 Other hazards The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds.
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · **Description:** Mixture of substances listed below with nonhazardous additions.

· Dangerous components:			
CAS: 87741-01-3 EINECS: 289-339-5 Reg.nr.: 01-2119480480-41-0000	Hydrocarbons, C4 < 0.1% buta-1.3-diene (K NOTE) < 0.1% H2S, <0.3% CO	🔖 Flam. Gas 1, H220 Press. Gas C, H280	25-50%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 012119486944-21-xxxx	propane	<page-header> Flam. Gas 1, H220 Press. Gas C, H280</page-header>	5-10%

Ingredients according to Detergents Regulation 648/2004/EC For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After swallowing: Seek immediate medical advice.
- 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: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- 5.3 Advice for firefighters
- Protective equipment: No special measures required.
- · Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up: Ensure adequate ventilation.
- 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

(Contd. on page 3)

Printing date 22.03.2018 Version: 3 Revision: 22.03.2018

Trade name: DNS AERO

See Section 13 for disposal information.

(Contd. of page 2)

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Keep away from heat and direct sunlight.

Ensure good ventilation/exhaustion at the workplace.

Information about fire - and explosion protection:

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

Keep ignition sources away - Do not smoke.

Pressurised 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.

- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles:

Observe official regulations on storing packagings with pressurised containers.

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

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:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · 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.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

- Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.
- Protection of hands:
- Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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. The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

· Not suitable are gloves made of the following materials: Strong material gloves

SECTION 9: Physical and chemical properties

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

Form: Aerosol
Colour: Colourless
Odour: Odourless
Odour threshold: Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/freezing point: Undetermined.

(Contd. on page 4)

Printing date 22.03.2018 Version: 3 Revision: 22.03.2018

Trade name: DNS AERO

	(Contd. of page	
Initial boiling point and boiling range: -44 °C		
Flash point:	-97 °C	
Flammability (solid, gas):	Not applicable.	
Ignition temperature:	210 °C	
Decomposition temperature:	Not determined.	
Auto-ignition temperature:	Product is not selfigniting.	
Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.	
Explosion limits:		
Lower:	0.5 Vol %	
Upper:	6.5 Vol %	
Vapour pressure at 20 °C:	2100 hPa	
Density at 20 °C:	0.6864 g/cm^3	
Relative density	Not determined.	
Vapour density	Not determined.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with		
water:	Insoluble.	
Partition coefficient: n-octanol/water:	Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Solvent content:		
Organic solvents:	35.0 %	
EU-VOC:	274.6 g/l	
EU-VOC	40.00 %	
Swiss VOC:	40.00 %	
9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.
- Primary irritant effect:
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

Printing date 22.03.2018 Version: 3 Revision: 22.03.2018

Trade name: DNS AERO

(Contd. of page 4)

SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- · 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.
- Additional ecological information:
- · General notes: Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- 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 Disposal must be made according to official regulations
- · Uncleaned packaging:
- · Recommendation: Disposal in accordance with administrative provisions

14.1 UN-Number ADR, IMDG, IATA	UN1950
	UN1930
14.2 UN proper shipping name	1050 AEDOCOLC
ADR IMDG	1950 AEROSOLS AEROSOLS
IMDG IATA	AEROSOLS, AEROSOLS, flammable
	AEROSOLS, Jiummuote
14.3 Transport hazard class(es)	
ADR	
2	
	2.500
Class Label	2 5F Gases. 2.1
	2.1
IMDG, IATA	
Class	2.1
Label	2.1
14.4 Packing group	
ADR, IMDĞ, IATA	Void
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Warning: Gases.
Danger code (Kemler):	-
EMS Number:	F- D , S - U
Stowage Code	SW1 Protected from sources of heat.
-	SW22 For AEROSOLS with a maximum capacity of 1 litre:
	Category A. For AEROSOLS with a capacity above 1 litre:
	Category B. For WASTE AEROSOLS: Category C, Clear of
	living quarters.
Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre:

Printing date 22.03.2018 Version: 3 Revision: 22.03.2018

Trade name: DNS AERO

	(Contd. of pag
	for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
14.7 Transport in bulk according to Anne. the IBC Code	x II of Marpol and Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E0
	Not permitted as Excepted Quantity
Transport category	2
Tunnel restriction code	D
IMDG	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E0
	Not permitted as Excepted Quantity
UN "Model Regulation":	UN 1950 AEROSOLS, 2.1

SECTION 15: Regulatory information

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

Reg. (EC) n. 1272/2008 - CLP; Reg. (EC) n. 1907/2006 - Reach;

Reg. (EC) n. 2015/830 annex II of REACH;

Reg. (EC) n. 648/04 (Detergents);

Reg. (EC) n. 528/12 (Biocides BPR);

Reg. (EC) n. 1223/2009 (Cosmetics);

Dir. 06/08 ADR - RID - IMDG - IATA;

Dir. 47/08 (Aerosols); Dir. 12/18 (Seveso III);

Dir. 2008/98/CE and Reg. (EC) n.1357/2014 (Waste management)

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category P3a FLAMMABLE AEROSOLS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 40
- · National regulations:
- · Technical instructions (air):

Class	Share in %
NK	25-50

- · Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

H280 Contains gas under pressure; may explode if heated.

· Department issuing SDS:

Customer Service

NL: Tel: + 31 164 250 100 Fax: + 31 164 266 710 B: Tel: +32 2 347 0117 Fax: +32 2 347 1395 IT: Tel: +39 069 266 91Fax: +39 06.927 470 61 UK: Tel: +44 151 422 1000 Fax: +44 151 422 1011

(Contd. on page 7)

Printing date 22.03.2018 Version: 3 Revision: 22.03.2018

Trade name: DNS AERO

(Contd. of page 6)

· Contact:

Customer Service

NL: Tel: + 31 164 250 100 Fax: + 31 164 266 710 B: Tel: +32 2 347 0117 Fax: +32 2 347 1395 IT: Tel: +39 069 266 91Fax: +39 06.927 470 61 UK: Tel: +44 151 422 1000 Fax: +44 151 422 1011

· 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) IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised 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)
VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)
VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Gas 1: Flammable gases – Category 1 Aerosol 1: Aerosols – Category 1 Press. Gas C: Gases under pressure – Compressed gas

* Data compared to the previous version altered.