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

- · 1.1 Product identifier
- · Trade name: IRON CLAD AERO NEW
- · Article number: 15200001
- 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)

- · Product category PC24 Lubricants, greases, release products
- · Process category

PROC7 Industrial spraying PROC11 Non industrial spraying

- · Application of the substance / the mixture Coating compound/ Surface coating/ paint
- · 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.

STOT SE 3 H336 May cause drowsiness or dizziness.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways. Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- · 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

Trade name: IRON CLAD AERO NEW

#### · Hazard pictograms



· Signal word Danger

## · Hazard-determining components of labelling:

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Hydrocarbons, C9-11, n-alkanes, isoalkanes, cyclics, <2% aromatics

#### · Hazard statements

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

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

#### 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.

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

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

#### · Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

Contains Calcium sulfonate. May produce an allergic reaction.

• 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:		
EC number: 927-241-2 Reg.nr.: 01-2119471843-32-0000	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 3, H412	25-50%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 012119486944-21-xxxx	propane	10-25%
CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27-xxxx	isobutane	10-25%
EC number: 920-750-0 Reg.nr.: 01-2119455851-33-xxxx	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics Flam. Liq. 3, H226 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 STOT SE 3, H335-H336	10-25%
CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32-xxxx	butane  The property of the state of the sta	5-10%
EC number: 919-857-5 Reg.nr.: 01-2119463258-33	Hydrocarbons, C9-11, n-alkanes, isoalkanes, cyclics, <2% aromatics Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336	2.5-5%

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	CAS: 61789-86-4	Calcium sulfonate	1-2.5%
	EINECS: 298-637-4	<b>♦</b> Skin Sens. 1B, H317	1
	Reg.nr.: 01-2119488992-18-0000		
Ī	CAS: 3010-23-9	1-aminoethyl-2-heptadecenyl imidazolin	0.1-1%
	EINECS: 221-133-2	♦ Skin Corr. 1B, H314	1
		Aquatic Acute 1, H400; Aquatic Chronic 1, H410	

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 skin contact:

If skin irritation continues, consult a doctor.

Immediately wash with water and soap and rinse thoroughly.

- · 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:

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:

Dispose contaminated material as waste according to item 13.

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.

See Section 13 for disposal information.

## SECTION 7: Handling and storage

- · 7.1 Precautions for safe handling Keep away from heat and direct sunlight.
- 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.

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· 7.3 Specific end use(s) No further relevant information available.

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#### 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:			
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics (25-50%)			
TLV (European Union)   Short-term value: 1200 mg/m³, 226 ppm			
106-97-8 butane (5-10	106-97-8 butane (5-10%)		
WEL (Great Britain)	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)		
·DNELs			
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics			

-		· ·	
Oral	DNEL acute-systemic	300 mg/kg human/day (consumer)	
Dermal	DNEL Acute-systemic	300 mg/kg human/day (consumer)	
		300 mg/kg human/day (worker)	
Inhalative	DNEL Acute-systemic mg/m3	900 mg/m3 (consumer)	
		1500 mg/m3 (worker)	
Hydrocarbons, C9-11, n-alkanes, isoalkanes, cyclics, <2% aromatics			
Oral	DNEL Long term-systemic	125 mg/kg human/day (consumer)	
Dormal	DNFL Long term-systemic	125 mg/kg human/day (consumer)	

Oral DNEL Long term-systemic 125 mg/kg human/day (consumer)
Dermal DNEL Long term-systemic 125 mg/kg human/day (consumer)
125 mg/kg human/day (consumer)
208 mg/kg human/day (worker)
11halative DNEL Long term-systemic mg/m3 900 mg/m3 (consumer)
871 mg/m3 (worker)

- 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.

- Respiratory protection: Filter AX
- 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:

Nitrile rubber, NBR Strong material gloves

## SECTION 9: Physical and chemical properties

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

Form: Aerosol
Colour: Whitish
Odour: Characteristic
Odour threshold: Not determined.

pH-value: Not determined.

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	(Contd. of page
· Change in condition Melting point/freezing point: Initial boiling point and boiling range	Undetermined. : Not applicable, as aerosol.
· Flash point:	< 0 °C
· Flammability (solid, gas):	Not applicable.
· Ignition temperature:	>200 °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: Upper:	0.6 Vol % 10.9 Vol %
· Vapour pressure at 20 °C:	3500 hPa
· Density at 20 °C: · Relative density · Vapour density · Evaporation rate	0.72 g/cm³ Not determined. Not determined. Not applicable.
· Solubility in / Miscibility with water:	Insoluble.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: Dynamic: Kinematic:	Not determined. Not determined.
· Solvent content: Organic solvents: EU-VOC: EU-VOC Swiss VOC:	74.4 % 533.7 g/l 74.12 % 74.12 %
Solids content: 9.2 Other information	25.6 % 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.

LD/LC50 values relevant for classification:		
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics		
Oral	LD50	>5000 mg/kg (Rat) (OECD 401)
Dermal	LD50	>5000 mg/kg (Rabbit) (OECD 402)
Inhalative	LC50 / 4 h	4951 mg/ltr (Rat) (OECD 403)
	LC50 / 96 h	>10<30 mg/ltr (Oncorhynchus mykiss (Rainbow trout))

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		(Contd. of page )
106-97-8 b	utane	
Inhalative	LC50 / 4 h	658 mg/ltr (Rat)
Hydrocarb	ons, C9-11, i	n-alkanes, isoalkanes, cyclics, <2% aromatics
Oral	LD50	>5000 mg/kg (Rat)
Dermal	LD50	>5000 mg/kg (Rabbit)
Inhalative	LC50 / 4 h	4951 mg/ltr (Rat)
61789-86-4	4 Calcium su	Ifonate
Oral	LD50	>20000 mg/kg (Rat)
Dermal	LD50	>4000 mg/kg (Rabbit)
	LC50 / 96 h	>10000 mg/ltr (Cyprinodon Variegatus)

- 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

May cause drowsiness or dizziness.

- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard

May be fatal if swallowed and enters airways.

## SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity:

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics

EL50 (48 h) >22<46 mg/l (Daphnia magna (water flea))

- · 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: Harmful to fish
- · Additional ecological information:
- General notes:

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.

Harmful to aquatic organisms

- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- $\cdot \textbf{12.6 Other adverse effects} \ \textit{No further relevant information available}.$

## SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation Disposal must be made according to official regulations

· European	waste catalogue
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 04	metallic packaging
08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
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. on page /

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- · 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, IATA	
Class	2.1
Label	2.1
14.4 Packing group	
ADR, IMDG, IATA	Void
14.5 Environmental hazards: Marine pollutant:	Yes
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:
	Segregation as for class 9. Stow "separated from" class 1 excep
	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 Annex II of the IBC Code	•
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)	IL
2	

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· 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
- · National regulations:
- · Technical instructions (air):

Class	Share in %
NK	50-75

- · Waterhazard class: Water hazard class 2 (Self-assessment): 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.

H226 Flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

#### 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

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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

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#### 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 Organisation

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) DNEL: Derived No-Effect Level (REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

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 Flam. Liq. 3: Flammable liquids – Category 3 Skin Corr. 1B: Skin corrosion/irritation - Category 1B

Skin Sens. 1B: Skin sensitisation - Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3

\* Data compared to the previous version altered.