



Espadon ZCZ-1200

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Issue date: 16-5-2018 Revision date: 28-5-2019 Supersedes: 16-5-2018 Version: 1.1

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

1.1. Product identifier

Product form : Mixture
Trade name : Espadon ZCZ-1200
Product code : 08.40.01
Type of product : Lubricants
Product group : Trade product

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use
Use of the substance/mixture : Metal working fluid

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Kroon Oil BV
Dollegoorweg 15
7602 EC Almelo - Netherlands
T 0031 (0)546 81 81 65
vib@kroon-oil.nl

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Poisons Information Service (Cardiff Centre) Gwenwyn Ward, Llandough Hospital	Penarth CF64 2XX Cardiff	0344 892 0111	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aspiration hazard, Category 1 H304
Hazardous to the aquatic environment — Chronic Hazard, Category 4 H413
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

May be fatal if swallowed and enters airways. May cause long lasting harmful effects to aquatic life.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



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	GHS08
Signal word (CLP)	: Danger
Hazardous ingredients	: Mineral oil *; Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, aromatics (2-30%); Distillates (petroleum), hydrotreated light naphthenic
Hazard statements (CLP)	: H304 - May be fatal if swallowed and enters airways. H413 - May cause long lasting harmful effects to aquatic life.
Precautionary statements (CLP)	: P273 - Avoid release to the environment. P301+P310+P331 - IF SWALLOWED: Immediately call a doctor. Do NOT induce vomiting. P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
EUH-statements	: EUH066 - Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Highly refined mineral oils and additives.

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, aromatics (2-30%)	(CAS-No.) (64742-80-9) (EC-No.) 919-006-8 (REACH-no) 01-2119455996-19	50 – 80	Asp. Tox. 1, H304 Aquatic Chronic 4, H413
Distillates (petroleum), hydrotreated light naphthenic (Note L)	(CAS-No.) 64742-53-6 (EC-No.) 265-156-6 (EC Index-No.) 649-466-00-2 (REACH-no) 01-2119480375-34	20 – 25	Asp. Tox. 1, H304
2-methylpropan-1-ol substance with national workplace exposure limit(s) (GB)	(CAS-No.) 78-83-1 (EC-No.) 201-148-0 (EC Index-No.) 603-108-00-1 (REACH-no) 01-2119484609-23	< 0,1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336

Comments : * contains one or more of the following CAS-numbers (REACH registration numbers): 64741-88-4 (01-2119488706-23), 64741-89-5 (01-2119487067-30), 64741-95-3 (01-2119487081-40), 64741-96-4 (01-2119483621-38), 64741-97-5 (01-2119480374-36), 64742-01-4 (01-2119488707-21), 64742-52-5 (01-2119467170-45), 64742-53-6 (01-2119480375-34), 64742-54-7 (01-2119484627-25), 64742-55-8 (01-2119487077-29), 64742-56-9 (01-2119480132-48), 64742-57-0 (01-2119489287-22), 64742-62-7 (01-2119480472-38), 64742-65-0 (01-2119471299-27), 64742-71-8 (01-2119485040-48), 72623-85-9 (01-2119555262-43), 72623-86-0 (01-2119474878-16), 72623-87-1 (01-2119474889-13), 74869-22-0 (01-2119495601-36)
The highly refined mineral oil contains <3% (w/w) DMSOextract, according to IP346.

Note L : The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 'Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method', Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.
Full text of H-statements: see section 16

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SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Do not induce vomiting. Call a physician immediately. Do not induce vomiting.

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

Symptoms/effects	: No additional information available. Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after skin contact	: Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after ingestion	: Risk of lung oedema. May result in aspiration into the lungs, causing chemical pneumonia.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Combustible liquid.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Take up liquid spill into absorbent material.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep in a cool, well-ventilated place away from heat.
Storage temperature : 0 – 40 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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EU - Occupational Exposure Limits

Exposure limits/standards for materials that can be formed when handling this product. When mists/aerosols can occur the following is recommended	5 mg/m ³ - ACGIH TLV (inhalable fraction).
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2-methylpropan-1-ol (78-83-1)

United Kingdom - Occupational Exposure Limits

Local name	2-Methylpropan-1-ol
WEL TWA (mg/m ³)	154 mg/m ³
WEL TWA (ppm)	50 ppm
WEL STEL (mg/m ³)	231 mg/m ³
WEL STEL (ppm)	75 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Materials for protective clothing:

Wear suitable protective clothing

Hand protection:

Protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	≥ 0.35		EN ISO 374

Eye protection:

Safety glasses

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Type	Use	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: brown.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: -24 °C - ASTM D5950 (pour point)
Boiling point	: No data available
Flash point	: 130 °C - ASTM D92 (COC)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0,836 kg/l (15 °C) - ASTM D4052
Solubility	: Water : Practically not miscible.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: 5,55 mm ² /s (40 °C) - ASTM D7279
Viscosity, dynamic	: No data available
Explosive properties	: Presents no particular fire or explosion hazard.
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content : 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Reacts violently with (strong) oxidizers.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No decomposition if stored normally.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

2-methylpropan-1-ol (78-83-1)

LD50 oral rat	2830 mg/kg
LD50 dermal rabbit	2460 mg/kg
LC50 inhalation rat (Dust/Mist - mg/l/4h)	24,6 mg/l/4h

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, aromatics (2-30%) ((64742-80-9))

LD50 oral rat	> 4150 mg/kg (OECD 401 method)
LD50 dermal rat	> 1700 mg/kg (OECD 402 method)
LC50 inhalation rat (mg/l)	5,28 mg/l (OECD 403 method)

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)

LD50 oral rat	> 5000 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 5,53 mg/l/4h

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, aromatics (2-30%) ((64742-80-9))

NOAEL (chronic, oral, animal/male, 2 years)	750 mg/kg bodyweight (OECD 408 method)
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Reproductive toxicity : Not classified

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, aromatics (2-30%) ((64742-80-9))

NOAEL (animal/female, F0/P)	> 3000 mg/kg (OECD 415 method)
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STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

2-methylpropan-1-ol (78-83-1)

NOAEL (oral, rat, 90 days)	> 1450 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
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Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, aromatics (2-30%) ((64742-80-9))

NOAEL (oral, rat, 90 days)	1056 mg/kg bodyweight/day (OECD 408 method)
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Aspiration hazard : May be fatal if swallowed and enters airways.

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Viscosity, kinematic	5,55 mm ² /s (40 °C) - ASTM D7279
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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long lasting harmful effects to aquatic life.
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : May cause long lasting harmful effects to aquatic life.

2-methylpropan-1-ol (78-83-1)

LC50 fish	1430 mg/l (Pimephales promelas, 96h)
EC50 Daphnia	1030 mg/l (Daphnia magna, 48h)
NOEC (chronic)	20 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, aromatics (2-30%) ((64742-80-9))

LC50 fish	> 1000 mg/l 96h - Oncorhynchus mykiss (Rainbow trout) (OECD 203 method)
EC50 Daphnia	> 1000 mg/l 48h - daphnia (OECD 202 method)
ErC50 (other aquatic plants)	1000 mg/l 72 h - Selenastrum capricornutum (OECD 201 method)

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)

LC50 fish	> 100 mg/l (96 h)
EC50 Daphnia	> 10 g/l
EC50 72h algae (1)	> 100 mg/l
NOEC (acute)	≥ 100 (72h)

12.2. Persistence and degradability

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, aromatics (2-30%) ((64742-80-9))

Biodegradation	59,1 % (28d)
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Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)

Persistence and degradability	Not readily biodegradable. Inherently biodegradable.
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12.3. Bioaccumulative potential

2-methylpropan-1-ol (78-83-1)

Partition coefficient n-octanol/water (Log Pow)	0,79
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Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)

Bioaccumulative potential	Bioaccumulative potential.
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12.4. Mobility in soil

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, aromatics (2-30%) ((64742-80-9))

Surface tension	28 – 31 mN/m (@ 25°C)
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Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)

Ecology - soil	Insoluble in water.
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12.5. Results of PBT and vPvB assessment

Component

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not allow into drains or water courses. Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

European List of Waste (LoW) code : 12 01 07* - mineral-based machining oils free of halogens (except emulsions and solutions)

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

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14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Reference code	Applicable on
3.	Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, aromatics (2-30%)
3(b)	Espadon ZCZ-1200 ; Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, aromatics (2-30%) ; Distillates (petroleum), hydrotreated light naphthenic
3(c)	Espadon ZCZ-1200 ; Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, aromatics (2-30%)

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : 0 %

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

For the following substances of this mixture a chemical safety assessment has been carried out

Distillates (petroleum), hydrotreated light naphthenic

SECTION 16: Other information

Indication of changes:

Section	Changed item	Change	Comments
	Revision date	Added	
	Issue date	Modified	
1.2	Main use category	Modified	
2.2	Precautionary statements (CLP)	Modified	

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Abbreviations and acronyms:	
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
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-statements:	
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
EUH066	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

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H413	May cause long lasting harmful effects to aquatic life.
EUH066	Repeated exposure may cause skin dryness or cracking.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.