according to Regulation (EC) No 1907/2006

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

1.1. Product identifier

ADDINOL Cutting Oil K 16 S

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

Use of the substance/mixture

Lubricating agent

1.3. Details of the supplier of the safety data sheet

Manufacturer

Manufacturer		
Company name:	ADDINOL Lube Oil GmbH	
	Gebäude 4609	
Street:	Am Haupttor	
Place:	D-06237 Leuna	
Telephone:	+49 (0) 3461 845-0	Telefax: +49 (0) 3461 845-555
e-mail:	info@addinol.de	
Contact person:	Application Technology	
Internet:	www.addinol.de	
Responsible Department:	ADDINOL Application Technology	
Supplier		
Company name:	GEM OILS LIMITED	
Place:	IRL-H12K298 Regaskin Co. Cavan	
Telephone:	+353 49 4378116	Telefax: +353 49 4368329
e-mail:	sales@gemoils.ie	
Contact person:	GEM OILS LIMITED	Telephone: +353 49 4378116
e-mail:	sales@gemoils.ie	
Internet:	https://gemoils.ie/	
1.4. Emergency telephone	Healthcare Professionals: +353 (1) 809	2566 (24 hour service)
was such a su		

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard statements

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 P501 Avoid release to the environment.

Dispose of contents/container to a waste disposal system.

Additional advice on labelling

Product is classified and labelled in accordance with EC regulations or the corresponding national laws.

2.3. Other hazards

Prolonged/repetitive skin contact may cause skin defattening or dermatitis.

Spilled product must not leak into the ground.

Do not allow uncontrolled leakage of product into the environment.

according to Regulation (EC) No 1907/2006

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SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name	Chemical name				
	EC No	Index No	REACH No			
	Classification (Regulation (EC) No 1272/2008)					
64742-65-0	Solvent, dewaxed heavy paraffinic petroleum			60 - < 80 %		
	265-169-7		01-2119471299-27			
	Asp. Tox. 1; H304					
128-37-0	2,6-Di-tert-butyl-4-methylphenol			0.3 - < 0.5 %		
	204-881-4		01-2119480433-40			
	Aquatic Acute 1, Aquatic Chronic 1; H400 H410					

Full text of H and EUH statements: see section 16.

Specific Con	Specific Conc. Limits, M-factors and ATE					
CAS No	EC No Chemical name					
	Specific Conc. Limits, M-factors and ATE					
64742-65-0	265-169-7 Solvent, dewaxed heavy paraffinic petroleum					
	dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg					
128-37-0	204-881-4 2,6-Di-tert-butyl-4-methylphenol					
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 6000 mg/kg					

Further Information

DMSO-Extrakt < 3 %, IP 346.

Classification system: The classification corresponds to the current EC lists and is completed by information from specialist literature and company information.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Self-protection of the first aider. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

After inhalation

Move victim to fresh air. Put victim at rest and keep warm. Seek medical attention if problems persist.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Change contaminated clothing. In case of skin irritation, seek medical treatment.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Do NOT induce vomiting.

Rinse mouth thoroughly with water. Call a physician immediately.

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

No information available.

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

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First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Foam. Extinguishing powder. Carbon dioxide (CO2). Water spray.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO2). Nitrogen oxides (NOx). carbon black.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Co-ordinate fire-fighting measures to the fire surroundings. Use water spray jet to protect personnel and to cool endangered containers. In case of fire and/or explosion do not breathe fumes. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

High slip hazard because of leaking or spilled product. Remove all sources of ignition. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Avoid contact with skin, eyes and clothes.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Section 12: Ecological Information (non-mandatory) Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Work in well-ventilated zones or use proper respiratory protection. Avoid oil mist If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene

Wash hands before breaks and after work. Take off immediately all contaminated clothing. Wash contaminated clothing prior to re-use. Do not eat, drink, smoke or sneeze at the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity. Keep container

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tightly closed in a cool place. Keep/Store only in original container.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs. Keep away from: Oxidizing agent.

Further information on storage conditions

Protect against: UV-radiation/sunlight. frost. heat. Recommended storage temperature: $5 - 40^{\circ}$ C

7.3. Specific end use(s)

Further information: see technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
128-37-0	2,6-Ditertiary-butyl-para-cresol	-	2		TWA (8 h)	

DNEL/DMEL values

CAS No	Substance						
DNEL type		Exposure route	Effect	Value			
64742-65-0	Solvent, dewaxed heavy paraffinic petroleum						
Worker DNEL,	long-term	inhalation	systemic	2,73 mg/m ³			
Worker DNEL,	long-term	inhalation	local	5,58 mg/m³			
Worker DNEL, long-term		dermal	systemic	0,97 mg/kg bw/day			
Consumer DN	EL, long-term	inhalation	local	1,19 mg/m³			
Consumer DN	EL, long-term	oral	systemic	0,74 mg/kg bw/day			
128-37-0	2,6-Di-tert-butyl-4-methylphenol						
Consumer DN	EL, long-term	inhalation	systemic	0,435 mg/m³			
Consumer DN	EL, long-term	dermal	systemic	0,25 mg/kg bw/day			
Consumer DNEL, long-term		oral	systemic	0,25 mg/kg bw/day			
Worker DNEL, long-term		dermal	systemic	0,5 mg/kg bw/day			
Worker DNEL,	long-term	inhalation	systemic	1,76 mg/m ³			

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PNEC values

CAS No	Substance					
Environment	Environmental compartment Value					
64742-65-0	Solvent, dewaxed heavy paraffinic petroleum					
Secondary poisoning 9,33						
128-37-0	2,6-Di-tert-butyl-4-methylphenol					
Freshwater 0,000199 mg/l						
Freshwater (intermittent releases) 0,00199 mg						
Marine water 0,00002 mg						
Freshwater sediment 0,458 mg/kg						
Marine sedim	nent	0,046 mg/kg				
Secondary poisoning 16,67 m						
Micro-organisms in sewage treatment plants (STP) 0,0						
Soil	Soil					

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): EN 166

Hand protection

Tested protective gloves are to be worn: German Industry Norms (DIN) / European Norms (EN): EN ISO 374

Duration of wearing with permanent contact: 480 min Suitable material: NBR (Nitrile rubber). Thickness of glove material: 0.7 mm.

Wearing time with occasional contact (splashes): 30 min Suitable material: NBR (Nitrile rubber). Thickness of glove material: 0.4 mm

Protect skin by using skin protective cream.

Skin protection

Wear suitable protective clothing. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Cosaint riospráide le scagaire i gcoinne gás orgánach agus gaile cineál A - fiuchphointe> 65 ° C: A1: <1000 ppm; A2: <5000 ppm; A3: <10,000 ppm.

SECTION 9: Physical and	chemical properties
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9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	brown

according to Regulation (EC) No 1907/2006

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Odour:	like: mineral oil.			
Odour threshold:	not determined			
			Test method	
Melting point/freezing point:	1	No data available		
Boiling point or initial boiling point and		> 200 °C		
boiling range:				
Flammability:	1	No data available		
Lower explosion limits:		0,6 vol. %		
Upper explosion limits:		6,5 vol. %		
Flash point:			DIN EN ISO 2592	
Auto-ignition temperature:		240 °C		
Decomposition temperature:	I	No data available		
pH-Value:		not applicable		
Viscosity / kinematic: (at 40 °C)		23 mm²/s	ASTM D 7042	
Water solubility:		insoluble		
Solubility in other solvents				
No data available				
Partition coefficient n-octanol/water:	-	No data available		
Vapour pressure: Density (at 15 °C):	ſ	No data available 0,873 g/cm³		
Relative vapour density:	,	No data available	DIN 51757	
9.2. Other information	ľ			
Information with regard to physical haz	ard classes			
Explosive properties				
No data available				
Oxidizing properties				
No data available				
Other safety characteristics				
Evaporation rate:	1	No data available		
Pour point:		-16 °C	ASTM D 7346	
SECTION 10: Stability and reactivity				

10.1. Reactivity

The product is stable under storage at normal ambient temperatures.

10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Refer to chapter 7 No further action is necessary.

Do not overheat to avoid decomposition by heat.

10.5. Incompatible materials

Reacts with : Oxidising agent, strong.

10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO2). Nitrogen oxides (NOx). carbon black. No known hazardous decomposition products.

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SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name							
	Exposure route	Dose		Species	Source	Method		
64742-65-0	Solvent, dewaxed heavy paraffinic petroleum							
	oral	LD50 mg/kg	> 5000	Rat	Study report (1982)	OECD Guideline 401		
	dermal	LD50 mg/kg	> 5000	Rabbit	Study report (1982)	OECD Guideline 402		
128-37-0	2,6-Di-tert-butyl-4-methyl	phenol				-		
	oral	LD50 mg/kg	> 6000	Rat	Study report (1989)	OECD Guideline 401		
	dermal	LD50 mg/kg	> 2000	Rat	Study report (1988)	OECD Guideline 402		

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

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.

Prolonged/repetitive skin contact may cause skin defattening or dermatitis.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties

not applicable

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

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CAS No	Chemical name							
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method	
64742-65-0	Solvent, dewaxed heavy paraffinic petroleum							
	Acute fish toxicity	LL50 mg/l	> 100	96 h	Pimephales promelas	Study report (1995)	OECD Guideline 203	
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Pseudokirchneriella subcapitata			
	Acute crustacea toxicity	EC50 mg/l	> 1000	48 h	Daphnia magna			
	Fish toxicity	NOEC mg/l	>= 1000	14 d	Oncorhynchus mykiss	CONCAWE, Brussels, Belgium (2010)	The aquatic toxicity was estimated by a	
128-37-0	2,6-Di-tert-butyl-4-methylphenol							
	Acute fish toxicity	LC50 mg/l	0,199	96 h	Oryzias latipes	REACh Registration Dossier	OECD Guideline 203	
	Acute algae toxicity	ErC50 mg/l	0,758	96 h	Pseudokirchneriella subcapitata	REACh Registration Dossier	OECD Guideline 201	
	Acute crustacea toxicity	EC50 mg/l	0,48	48 h	Daphnia magna	REACh Registration Dossier	OECD Guideline 202	
	Fish toxicity	NOEC mg/l	0,053	30 d	Oryzias latipes	REACh Registration Dossier	OECD Guideline 210	
	Crustacea toxicity	NOEC mg/l	0,069	21 d	Daphnia magna	REACh Registration Dossier	OECD Guideline 211	
	Acute bacteria toxicity	(EC50 mg/l)	> 10000	3 h	Activated sludge	Study report (2000)	OECD Guideline 209	

12.2. Persistence and degradability

Not easily bio-degradable (according to OECD-criteria). Do not allow to enter into surface water or drains.

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64742-65-0	Solvent, dewaxed heavy paraffinic petroleum	> 3
128-37-0	2,6-Di-tert-butyl-4-methylphenol	5,03

BCF

CAS No	Chemical name	BCF	Species	Source
128-37-0	2,6-Di-tert-butyl-4-methylphenol	465		REACh Registration D

12.4. Mobility in soil

Due to its low solubility in water the product is almost completely mechanically separated in biological waste water treatment plants.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No data available

according to Regulation (EC) No 1907/2006

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Further information

Do not allow uncontrolled leakage of product into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Must not be disposed of with domestic refuse. Do not allow to enter into surface water or drains.

List of Wastes Code - residues/unused products

120107 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS; wastes from shaping and physical and mechanical surface treatment of metals and plastics; mineral-based machining oils free of halogens (except emulsions and solutions); hazardous waste

Contaminated packaging

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Dispose of waste according to applicable legislation. Packing which cannot be properly cleaned must be thrown away.

SECTION 14: Transport information

Land transport (ADR/RID)

<u>14.1. UN number or ID number:</u>	-
14.2. UN proper shipping name:	-
14.3. Transport hazard class(es):	-
14.4. Packing group:	-
Inland waterways transport (ADN)	
14.1. UN number or ID number:	-
14.2. UN proper shipping name:	-
14.3. Transport hazard class(es):	-
14.4. Packing group:	-
Marine transport (IMDG)	
14.1. UN number or ID number:	-
14.2. UN proper shipping name:	-
14.3. Transport hazard class(es):	-
14.4. Packing group:	-
Air transport (ICAO-TI/IATA-DGR)	
14.1. UN number or ID number:	-
14.2. UN proper shipping name:	-
<u>14.3. Transport hazard class(es):</u>	-
14.4. Packing group:	-
14.5. Environmental hazards	
ENVIRONMENTALLY HAZARDOUS:	No
14.6. Special precautions for user	ecourse for onto transport must be fellowed
Unless specified otherwise, general m	easures for safe transport must be followed.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

Other applicable information

No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

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

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EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

National regulatory information

Water hazard class (D):

1 - slightly hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 9.

Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ADN -European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ASTM - American Society for the Testing of Materials; ATE - Acute Toxicity Estimates; bw - Body weight; CAO -Cargo Aircraft Only; CAS - Chemical Abstracts Service; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL - Derived No-Effect Level; DOT -Department of Transportation; DSL - Domestic Substances List (Canada); EG - European Union; EN -European standards; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; 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; MSHA - Mine Safety and Health Administration: n:o:s: - Not Otherwise Specified: NFPA - National Fire Protection Association: NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate: NTP - National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT -Persistent, Bioaccumulative and Toxic substance; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulation concerning the International Carriage of Dangerous Goods by Rail; RQ -Reportable Quantity; SADT - Self- Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TSCA - Toxic Substances Control Act (United States); UN -United Nations; vPvB - Very Persistent and Very Bioaccumulative

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H304	May be fatal if swallowed and enters airways.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Further Information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be

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transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)