according to UK REACH Regulation

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

1.1. Product identifier

ADDINOL Penta-Cool WS 251

UFI: EKRS-56J6-P20F-PAJ2

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

Use of the substance/mixture

Metal working fluids.

1.3. Details of the supplier of the safety data sheet

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: Specialised Products (Western) Limited
Street: 76 Cobham Road, Ferndown Industrial Estate

Place: GB-BH21 7RN Wimborne, Dorset

Telephone: +44 1202 891393 Telefax: +44 1202 876908

e-mail: sales@specialisedproducts.co.uk
Internet: http://specialisedproducts.co.uk

1.4. Emergency telephone +44 1202 891393 - This number is serviced during office hours.

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 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

GB CLP Regulation

Hazard components for labelling

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one

Signal word: Warning

Pictograms:



according to UK REACH Regulation

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Hazard statements

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

P501 Dispose of contents/container to an appropriate recycling or disposal facility.

Additional advice on labelling

The product is classified and labelled according to EC directives or 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.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity	
	EC No	Index No		REACH No	
	Classification (GB CLP Regul	ation)			
101-83-7	dicyclohexylamine			1 - < 2.5 %	
	202-980-7	612-066-00-3			
	Acute Tox. 4, Skin Corr. 1B, Aquatic Acute 1, Aquatic Chronic 1; H302 H314 H400 H410			H314 H400 H410	
2634-33-5	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one			0.3 - < 0.5 %	
	220-120-9	613-088-00-6			
	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1, Aquatic Acute 1; H302 H315 H318 H317 H400				

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

Specific Conc. Limits, M-factors and ATE

Opodino Con		ACTO WITH THE	
CAS No	EC No	Chemical name	Quantity
	Specific Conc.	Limits, M-factors and ATE	
101-83-7	202-980-7	dicyclohexylamine	1 - < 2.5 %
	dermal: LD50 :	= 200 - 316 mg/kg; oral: LD50 = 200 mg/kg	
2634-33-5	220-120-9	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	0.3 - < 0.5 %
	dermal: LD50 :	= > 2000 mg/kg; oral; LD50 = 670 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

according to UK REACH Regulation

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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. Use skin protection ointment after cleaning. In case of skin irritation, seek medical treatment.

After contact with eves

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

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Foam. Extinguishing powder. Carbon dioxide (CO2). Atomized water. Sand.

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 dioxide (CO2). Carbon monoxide. 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/stream 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, eye and clothing.

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. Take up mechanically, placing in appropriate containers for

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disposal.

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 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 agents.

Further information on storage conditions

Protect against: UV-radiation/sunlight. frost. heat. Recommended storage temperature: 5 - 40°C

7.3. Specific end use(s)

Further information: see technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance			
DNEL type	DNEL type		Effect	Value
101-83-7	dicyclohexylamine			
Worker DNEL	long-term	inhalation	systemic	0,353 mg/m³
Worker DNEL	long-term	dermal	systemic	0,1 mg/kg bw/day
2634-33-5	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one			
Worker DNEL	long-term	inhalation	systemic	6,81 mg/m³
Worker DNEL	long-term	dermal	systemic	0,966 mg/kg bw/day
Consumer DN	EL, long-term	inhalation	systemic	1,2 mg/m³
Consumer DNEL, long-term		dermal	systemic	0,345 mg/kg bw/day

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PNEC values

CAS No	Substance	
Environmenta	al compartment	Value
101-83-7	dicyclohexylamine	·
Freshwater		0,002 mg/l
Freshwater (i	intermittent releases)	0,01 mg/l
Marine water		0 mg/l
Freshwater s	ediment	0,075 mg/kg
Marine sedim	nent	0,007 mg/kg
Micro-organis	sms in sewage treatment plants (STP)	21 mg/l
Soil		0,014 mg/kg
2634-33-5	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	·
Freshwater		0,00403 mg/l
Freshwater (i	intermittent releases)	0,0011 mg/l
Marine water		0,000403 mg/l
Freshwater sediment		0,0499 mg/kg
Marine sediment		0,00499 mg/kg
Micro-organisms in sewage treatment plants (STP)		1,03 mg/l
Soil		3 mg/kg

Additional advice on limit values

source:

Recommended limit value for cooling lubricants (steam and aerosol)

MAK: 10 mg/m³

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.

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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. full mask (DIN EN 136). Breathing protection with filter against organic gases and vapours type A - boiling point > 65°C: A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid Colour: clear

Odour: like: mineral oil.
Odour threshold: not determined

Test method

Changes in the physical state

Melting point/freezing point:

Boiling point or initial boiling point and

No data available

> 100 °C

boiling range:

Pour point: No data available

Flash point: > 100 °C DIN EN ISO 2592

Flammability

Solid/liquid: No data available
Gas: No data available

Explosive properties

No data available

Lower explosion limits:

Upper explosion limits:

not determined

not determined

Auto-ignition temperature:

> 240 °C

Self-ignition temperature

Solid: No data available
Gas: No data available
Decomposition temperature: No data available

pH-Value (at 20 °C): 9,4 5% - DIN 51369

Viscosity / kinematic: 13 mm²/s DIN EN ISO 3104

(at 20 °C)

Water solubility: highly soluble.

Solubility in other solvents

No data available

Partition coefficient n-octanol/water:

Vapour pressure:

No data available

No data available

Density (at 15 °C): 1,070 g/cm³ DIN EN ISO 12185

Relative vapour density: No data available

9.2. Other information

Information with regard to physical hazard classes

according to UK REACH Regulation

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Oxidizing properties

No data available

Other safety characteristics

Evaporation rate: No data available

Further InformationNo data available

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.

10.5. Incompatible materials

Reacts with: Oxidizing agents, strong.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

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

Mixture not tested.

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
101-83-7	dicyclohexylamine					
	oral	LD50 mg/kg	200	Rat	' '	Single oral application by gavage, undil
	dermal	LD50 mg/kg	200 - 316	Rabbit	Other company data (1977)	other:
2634-33-5	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one					
	oral	LD50 mg/kg	670	Rat	Study report (1988)	OECD Guideline 401
	dermal	LD50 mg/kg	> 2000	Rat	Study report (1994)	OECD Guideline 402

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

May cause an allergic skin reaction. (1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one)

Carcinogenic/mutagenic/toxic effects for reproduction

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

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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

Mixture not tested.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method
101-83-7	dicyclohexylamine						
	Acute fish toxicity	LC50	62 mg/l	96 h	Danio rerio	Study report (1992)	EU Method C.1
	Acute algae toxicity	ErC50	> 1 mg/l	72 h	Desmodesmus subspicatus	Other company data (1992)	EU Method C.3
	Acute crustacea toxicity	EC50	8 mg/l	48 h	Daphnia magna	Study report (1999)	OECD Guideline 202
	Crustacea toxicity	NOEC mg/l	0,016	21 d	Daphnia magna	Study report (1999)	other: OECD Guideline 202, part 2 "Daphn
	Acute bacteria toxicity	(EC50 mg/l)	712	3 h	Activated sludge	Study report (1990)	ISO 8192
2634-33-5	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one						
	Acute fish toxicity	LC50 mg/l	ca. 16,7	96 h	Cyprinodon variegatus	REACh Registration Dossier	other:
	Acute algae toxicity	ErC50 mg/l	0,15	72 h	Pseudokirchneriella subcapitata	Study report (1994)	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	2,94	48 h	Daphnia magna	Study report (1995)	OECD Guideline 202
	Acute bacteria toxicity	(EC50	13 mg/l)	3 h	activated sludge of a predominantly domestic sewag	REACh Registration Dossier	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

Mixture not tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
101-83-7	dicyclohexylamine	2,724
2634-33-5	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	0,63

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BCF

CAS No	Chemical name	BCF	Species	Source
101-83-7	dicyclohexylamine	459		BCFWIN v. 2.1 (2005)
2634-33-5	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	ca. 6,62	Lepomis macrochirus	REACh Registration D

12.4. Mobility in soil

Is eliminable from water only with difficulty.

12.5. Results of PBT and vPvB assessment

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

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

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)

14.1. UN number or ID number:

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:

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14.3. Transport hazard class(es):
14.4. Packing group:

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Unless specified otherwise, general measures 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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

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

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

according to UK REACH Regulation

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Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Skin Sens. 1; H317	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
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 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.)