



Safety Data Sheet

according to Regulation (EC) No 1907/2006

ADDINOL Penta-Cool WM 910

Print date: 16.07.2015

Product code: 770101

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

1.1. Product identifier

ADDINOL Penta-Cool WM 910

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

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	

1.4. Emergency telephone number: +49 (0) 3461-845201 - This number is serviced during office hours.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].

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

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2A

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Causes serious eye irritation.

Causes skin irritation.

Harmful to aquatic life with long lasting effects.

2.2. Label elements

Signal word: Warning

Pictograms: GHS07



Hazard statements

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear suitable gloves and eye/face protection.



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P332+P313 If skin irritation occurs: Get medical advice/attention.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P501 Dispose of contents/container to a waste disposal system.

Special labelling of certain mixtures

EUH208 Contains 3-Iodo-2-propynyl butylcarbamate. May produce an allergic reaction.

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 defatting 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

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
201-162-7	1-aminopropan-2-ol, isopropanolamine	< 3 %
78-96-6	C - Corrosive R34	
603-082-00-1	Skin Corr. 1B; H314	
203-961-6	2-(2-butoxyethoxy)ethanol, diethylene glycol monobutyl ether	< 2,50 %
112-34-5	Xi - Irritant R36	
603-096-00-8	Eye Irrit. 2; H319	
202-980-7	dicyclohexylamine	< 2 %
101-83-7	C - Corrosive, Xn - Harmful, N - Dangerous for the environment R22-34-50-53	
612-066-00-3	Acute Tox. 4, Skin Corr. 1B, Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 1 (M-Factor = 1); H302 H314 H400 H410	
202-394-1	1,2,3-Triazindene	< 1 %
95-14-7	Xn - Harmful, Xi - Irritant R20/22-36-52-53	
	Acute Tox. 4, Eye Irrit. 2, Aquatic Chronic 2; H302 H319 H411	
259-627-5	3-Iodo-2-propynyl butylcarbamate	< 0,50 %
55406-53-6	T - Toxic, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R22-23-41-43-48/23-50	
	Acute Tox. 3, Acute Tox. 4, Eye Dam. 1, Skin Sens. 1, STOT RE 1, Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 1 (M-Factor = 1); H331 H302 H318 H317 H372 H400 H410	

Full text of R-, H- and EUH-phrases: see section 16.

Further Information

DMSO-Extrakt < 3 %, IP 346.

Concentration of PCBs < 1mg/kg.

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



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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. Use skin protection ointment after cleaning. 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

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

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 (NO_x). Phosphorus oxides. 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

High slip hazard because of leaking or spilled product. Remove all sources of ignition. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

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).



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6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal. Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Refer to the provisions listed in Sections 8, 12 and 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, eye and clothing.

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking.

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 absorption of humidity. Keep container tightly closed in a cool place.

Advice on storage compatibility

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

Further information on storage conditions

Protect against: UV-radiation/sunlight, frost.
Recommended storage temperature: 10 - 30°C

7.3. Specific end use(s)

Further information: see technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
112-34-5	2-(2-Butoxyethoxy)ethanol	10	67.5		TWA (8 h)	WEL
		15	101.2		STEL (15 min)	WEL

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 exhaust at critical locations.



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Protective and hygiene measures

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.

Eye/face protection

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

Hand protection

Tested protective gloves are to be worn: German Industry Norms (DIN) / European Norms (EN): DIN EN 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. 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:	light brown
Odour:	like: mineral oil.

	Test method
pH-Value (at 20 °C):	9,9
Changes in the physical state	
Initial boiling point and boiling range:	> 100 °C
Flash point:	> 130 °C DIN EN ISO 2592
Lower explosion limits:	0,6 vol. %
Upper explosion limits:	6,5 vol. %
Ignition temperature:	> 240 °C DIN 51794
Density (at 15 °C):	0,952 g/cm ³ DIN EN ISO 12185
Water solubility:	highly soluble.
Viscosity / kinematic: (at 20 °C)	220 mm ² /s DIN EN ISO 3104

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable with proper care and handling.

10.2. Chemical stability



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The product is chemically stable when handled and stored under normal conditions.

10.3. Possibility of hazardous reactions

No decomposition if used as intended.

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 : Oxidizing agents, strong.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

No data available

Mixture not tested.

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
78-96-6	1-aminopropan-2-ol, isopropanolamine				
	oral	LD50	2700 mg/kg	Rat	
	dermal	LD50	1600 mg/kg	Rabbit	
112-34-5	2-(2-butoxyethoxy)ethanol, diethylene glycol monobutyl ether				
	oral	LD50	5660 mg/kg	Rat	
	dermal	LD50	4120 mg/kg	Rabbit	
101-83-7	dicyclohexylamine				
	oral	LD50	373 mg/kg	Rat	GESTIS
95-14-7	1,2,3-Triazindene				
	oral	ATE	500 mg/kg		
55406-53-6	3-Iodo-2propynyl butylcarbamate				
	oral	ATE	500 mg/kg		
	inhalative vapour	ATE	3 mg/l		
	inhalative aerosol	ATE	0,5 mg/l		

Irritation and corrosivity

Irritant effect on the eye: Irritant.

Irritant effect on the skin: Irritant.

Sensitising effects

Contains: 3-Iodo-2propynyl butylcarbamate. May produce an allergic reaction.

Severe effects after repeated or prolonged exposure

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

Carcinogenic/mutagenic/toxic effects for reproduction

No data available



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Specific effects in experiment on an animal

No data available

SECTION 12: Ecological information

12.1. Toxicity

No data available

Preparation not tested.

CAS No	Chemical name	Method	Dose	[h] [d]	Species	Source
78-96-6	1-aminopropan-2-ol, isopropanolamine					
	Acute fish toxicity	LC50 mg/l	220 - 460	96 h	Leuciscus idus	IUCLID
	Acute algae toxicity	ErC50	23 mg/l	72 h	Desmodesmus subspicatus	IUCLID
	Acute crustacea toxicity	EC50	108,8 mg/l	48 h	Daphnia	IUCLID
112-34-5	2-(2-butoxyethoxy)ethanol, diethylene glycol monobutyl ether					
	Acute algae toxicity	ErC50	> 100 mg/l		Scenedesmus sp.	
	Acute crustacea toxicity	EC50	> 100 mg/l	48 h	Daphnia magna	
101-83-7	dicyclohexylamine					
	Acute fish toxicity	LC50	62 mg/l	96 h	Danio rerio	IUCLID

12.2. Persistence and degradability

Individual components are biodegradable.

12.3. Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
78-96-6	1-aminopropan-2-ol, isopropanolamine	-0,96
112-34-5	2-(2-butoxyethoxy)ethanol, diethylene glycol monobutyl ether	0,56 (25°C)
101-83-7	dicyclohexylamine	-0,4

12.4. Mobility in soil

Is eliminable from water only with difficulty.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. 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

Advice on disposal

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

Waste disposal number of waste from residues/unused products



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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)
Classified as 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: -

Inland waterways transport (ADN)

14.1. UN number: -

Marine transport (IMDG)

14.1. UN number: -

Air transport (ICAO)

14.1. UN number: -

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. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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

National regulatory information

Water contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment

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

SECTION 16: Other information

Relevant R-phrases (Number and full text)

20/22	Harmful by inhalation and if swallowed.
22	Harmful if swallowed.
23	Toxic by inhalation.
34	Causes burns.
36	Irritating to eyes.
41	Risk of serious damage to eyes.
43	May cause sensitisation by skin contact.
48/23	Toxic: danger of serious damage to health by prolonged exposure through inhalation.
50	Very toxic to aquatic organisms.
52	Harmful to aquatic organisms.
53	May cause long-term adverse effects in the aquatic environment.



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Relevant H- and EUH-phrases (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.
H331	Toxic if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
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.
EUH208	Contains 3-Iodo-2propynyl butylcarbamate. May produce an allergic reaction.

Further Information

This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].

These given data only refer to the named product. If the product is used together with other materials or in manufacturing processes the data might not be applicable any more. The data are based on today's state of our knowledge and experience. They are, however, no guarantee of any specific product properties and do not established any legally valid contractual relationship.

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.)