

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 03-Jul-2019

Print date: 11-Jul-2019

Version: 2019.1

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CURTIS HiSpeed 441 Eco

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

1.1. Product identifier

Trade name/designation:

CURTIS HiSpeed 441 Eco

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

Use of the substance/mixture:

Water-miscible coolant lubricant

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Curtis Systems GmbH

Geheimrat-Hummel-Platz Nr. 4

65239 Hochheim

Germany

Telephone: 0614690738-0

Telefax: 061469073845

E-mail: info@curtis-systems.de

E-mail (competent person): weimer@curtis-systems.de

1.4. Emergency telephone number

Technical department: , 06146-90738-33 (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Hazardous to the aquatic environment (<i>Aquatic Chronic 3</i>)	H412: Harmful to aquatic life with long lasting effects.	
Skin corrosion/irritation (<i>Skin Irrit. 2</i>)	H315: Causes skin irritation.	
Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>)	H319: Causes serious eye irritation.	

2.2. Label elements

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

Hazard pictograms:



GHS07

Exclamation mark

Signal word: Warning

hazard statements for health hazards

H315	Causes skin irritation.
H319	Causes serious eye irritation.

Hazard statements for environmental hazards

H412	Harmful to aquatic life with long lasting effects.
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Supplemental Hazard information (EU)

EUH208	Contains 2-n-butyl-benzo[d]isothiazol-3-one. May produce an allergic reaction.
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Precautionary statements Prevention

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

Precautionary statements Response

P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

Other adverse effects:

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Description:

Mixture of mineral oil, emulsifiers and additives.

Additional information:

Substance with a common (EC) occupational exposure limit value. See section 8.

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 141-43-5 EC No.: 205-483-3 REACH No.: 01-2119486455-28-0000	2-aminoethanol Acute Tox. 4, Skin Corr. 1B Danger H302-H312-H314-H332	1 - 3 Wt %
CAS No.: 68920-66-1 EC No.: 500-236-9 REACH No.: 01-2119489407-26-0000	Alcohols, C16-18 and C18-unsatd., ethoxylated The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP]. Danger H318	1 - 2.5 Wt %
CAS No.: 101-83-7 EC No.: 202-980-7 REACH No.: 01-2119493354-33-0000	dicyclohexylamine Acute Tox. 3, Aquatic Acute 1, Aquatic Chronic 1, Eye Dam. 1, Skin Corr. 1A Danger H301-H311-H314-H318-H400-H410	< 2 Wt %
CAS No.: 4299-07-4 EC No.: 420-590-7	2-n-butyl-benzene(d)isothiazol-3-one Aquatic Acute 1, Aquatic Chronic 1, Skin Corr. 1B, Skin Sens. 1 Danger H314-H317-H410	< 0.25 Wt %

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

Change contaminated, saturated clothing.

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Following inhalation:

Following inhalation - Provide fresh air.

In case of respiratory tract irritation, consult a physician.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap.

In case of skin irritation, consult a physician.

After eye contact:

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.

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After ingestion:

Let water be drunken in little sips (dilution effect).
Do NOT induce vomiting.
Call a physician immediately.

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

No known symptoms to date.

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Suitable extinguishing media Sand alcohol resistant foam Extinguishing powder Dry extinguishing powder

Unsuitable extinguishing media:

Full 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 (NO_x)

5.3. Advice for firefighters

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

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Wear personal protection equipment.
Special danger of slipping by leaking/spilling product.

6.1.2. For emergency responders

No data available

6.2. Environmental precautions

Do not allow to enter into surface water or drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up

For cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Collect in closed containers for disposal.

6.4. Reference to other sections

No data available

6.5. Additional information

See section 8. + 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

All work processes must always be designed so that the following is as low as possible: Inhalation Skin contact Eye contact
Always close containers tightly after the removal of product.

Fire prevent measures:

Usual measures for fire prevention.

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Environmental precautions:

Shafts and sewers must be protected from entry of the product.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:

Keep container tightly closed. Provide for retaining containers, eg. floor pan without outflow.

Keep/Store only in original container.

Hints on storage assembly:

Materials to avoid: Oxidising agent

Storage class: 10 - Combustible liquids that cannot be assigned to any of the above storage classes

Further information on storage conditions:

Further information on storage conditions Protect against: Heat Frost

Recommended storage temperature 15-25 °C

storage stability max. 1 year.

7.3. Specific end use(s)

Recommendation:

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
IOELV (EU)	2-aminoethanol CAS No.: 141-43-5	① 1 ppm (2.5 mg/m ³) ② 3 ppm (7.6 mg/m ³) ⑤ (may be absorbed through the skin)
TRGS 900 (DE)	2-aminoethanol CAS No.: 141-43-5	① 0.2 ppm (0.5 mg/m ³) ② 0.2 ppm (0.5 mg/m ³)
TRGS 900 (DE)	dicyclohexylamine CAS No.: 101-83-7	① 0.7 ppm (5 mg/m ³) ② 1.4 ppm (10 mg/m ³) ⑤ (kann über die Haut aufgenommen werden)

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
Alcohols, C16-18 and C18-unsatd., ethoxylated CAS No.: 68920-66-1	294 mg/m ³	① DNEL worker ② DNEL long-term inhalative (systemic)
Alcohols, C16-18 and C18-unsatd., ethoxylated CAS No.: 68920-66-1	2,080 mg/kg	① DNEL worker ② DNEL long-term dermal (systemic)
dicyclohexylamine CAS No.: 101-83-7	0.353 mg/m ³	① DNEL worker ② DNEL long-term inhalative (systemic)
dicyclohexylamine CAS No.: 101-83-7	0.1 mg/kg	① DNEL worker ② DNEL long-term dermal (systemic)

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Substance name	PNEC Value	① PNEC type
Alcohols, C16-18 and C18-unsatd., ethoxylated CAS No.: 68920-66-1	0.002 mg/l	① PNEC aquatic, freshwater
Alcohols, C16-18 and C18-unsatd., ethoxylated CAS No.: 68920-66-1	0.002 mg/l	① PNEC aquatic, marine water
Alcohols, C16-18 and C18-unsatd., ethoxylated CAS No.: 68920-66-1	6.33 mg/kg	① PNEC sediment, freshwater
dicyclohexylamine CAS No.: 101-83-7	0.00032 mg/l	① PNEC aquatic, freshwater
dicyclohexylamine CAS No.: 101-83-7	0.00003 mg/l	① PNEC aquatic, marine water
dicyclohexylamine CAS No.: 101-83-7	0.00529 mg/kg	① PNEC sediment, freshwater
dicyclohexylamine CAS No.: 101-83-7	108 mg/l	① PNEC sewage treatment plant (STP)

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

8.2.2. Personal protection equipment



Eye/face protection:

Tightly sealed safety glasses.

Skin protection:

Hand protection: Tested protective gloves must be worn - In case of prolonged or frequently repeated skin contact:

Suitable material: Suitable material: NBR (Nitrile rubber) Butyl caoutchouc (butyl rubber)

Thickness of the glove material: 0,7 mm

Breakthrough time (maximum wearing time): > 480

Respiratory protection:

With correct and proper use, and under normal conditions, breathing protection is not required.

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Other protection measures:

Set out skin protection guidelines. Before starting work, apply water-resistant skincare preparations. Avoid contact with skin, eyes and clothes.

8.2.3. Environmental exposure controls

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: light brown

Odour: characteristic

Safety relevant basis data

parameter		at °C	Method	Remark
pH	> 9.5	20 °C		5%
Melting point	<i>not determined</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	> 100 °C			
Decomposition temperature	<i>not determined</i>			

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parameter		at °C	Method	Remark
Flash point	> 100 °C		DIN EN ISO 2592	
Evaporation rate	<i>not determined</i>			
Auto-ignition temperature	<i>not determined</i>			
Upper/lower flammability or explosive limits	<i>not determined</i>			
Vapour pressure	<i>not determined</i>			
Vapour density	<i>not determined</i>			
Density	0.92 g/cm ³	15 °C	DIN EN ISO 12185	
Bulk density	<i>not determined</i>			
Water solubility	miscible			
Partition coefficient: n-octanol/ water	<i>not determined</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	≈ 120 mm ² /s	20 °C	DIN EN ISO 3104	

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

There are no data available on the mixture itself.

10.2. Chemical stability

The product is stable.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

Protect against: Heat Frost

10.5. Incompatible materials

Materials to avoid Oxidising agent

10.6. Hazardous decomposition products

No decomposition under normal conditions.

Combustion products:

Carbon dioxide. Carbon monoxide Nitrogen oxides (NO_x)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
68920-66-1	Alcohols, C16-18 and C18-unsatd., ethoxylated	LD₅₀ oral: >2,000 mg/kg (Rat)

Acute oral toxicity:

There are no data available on the mixture itself.

Acute dermal toxicity:

There are no data available on the mixture itself.

Acute inhalation toxicity:

There are no data available on the mixture itself.

Skin corrosion/irritation:

There are no data available on the preparation/mixture itself.

Irritating to skin.

The statement is derived from the properties of the single components.

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Serious eye damage/irritation:

There are no data available on the mixture itself.
irritant.

The statement is derived from the properties of the single components.

Respiratory or skin sensitisation:

No sensitisation effect known.

Contains: 2-n-butyl-benzo[d]isothiazol-3-one. May produce an allergic reaction.

Carcinogenicity:

The components in this formulation do not meet the criteria for classification as CMR category 1 or 2.

STOT-single exposure:

Not known.

STOT-repeated exposure:

Not known.

SECTION 12: Ecological information

12.1. Toxicity

CAS No.	Substance name	Toxicological information
68920-66-1	Alcohols, C16-18 and C18-unsatd., ethoxylated	LC₅₀ : 108 mg/l 2 d (Brachydanio rerio (zebrafish)) OECD 203 EC₅₀ : 51 mg/l 2 d (Daphnia magna (Big water flea)) OECD 202 ErC₅₀ : 100 mg/l 3 d (Scenedesmus subspicatus)
101-83-7	dicyclohexylamine	LC₅₀ : 12 mg/l 4 d (Leuciscus idus (golden orfe)) OECD 203 EC₅₀ : 8 mg/l 2 d (Daphnia magna (Big water flea)) OECD 202 ErC₅₀ : 3.3 mg/l 3 d (Scenedesmus subspicatus) OECD 201

Aquatic toxicity:

There are no data available on the mixture itself.

The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see section 3).

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

Biodegradation:

Part of the components is biodegradable.

12.3. Bioaccumulative potential

Accumulation / Evaluation:

There are no data available on the mixture itself.

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
68920-66-1	Alcohols, C16-18 and C18-unsatd., ethoxylated	—
101-83-7	dicyclohexylamine	—
	Cooling lubricants (flashpoint > 100 °C)	—
141-43-5	2-aminoethanol	—
4299-07-4	2-n-butyl-benzene(d)isothiazol-3-one	—

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

12.6. Other adverse effects

No information available.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

12 01 09 *	machining emulsions and solutions free of halogens
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*: Evidence for disposal must be provided.

Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Delivery to an approved waste disposal company.
Non-contaminated packages may be recycled.

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN-No.			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es)			
not relevant			
14.4. Packing group			
not relevant			
14.5. Environmental hazards			
not relevant			
14.6. Special precautions for user			
not relevant			

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

SECTION 15: Regulatory information

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

No data available

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

16.1. Indication of changes

8.1.	Control parameters
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16.2. Abbreviations and acronyms

No data available

16.3. Key literature references and sources for data

No data available

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

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
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Skin corrosion/irritation (<i>Skin Irrit. 2</i>)	H315: Causes skin irritation.	
Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>)	H319: Causes serious eye irritation.	

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

16.6. Training advice

No data available

16.7. Additional information

No data available

* Data changed compared with the previous version