

1. Identification of the substance/preparation and of the company/undertaking

1.1 Identification of the substance/preparation

CILLIT HS Combi 2

1.2 Use of the substance/preparation

Corrosion inhibitor for closed recirculating heating- and cooling water systems.

1.3 Company/undertaking information

BWT - AG

Walter Simmer Str. 4

A-5310 Mondsee - AUSTRIA

Telefon: +43-6232-5011-0

Telefax: +43-6232-5011-1229

1.3.1 Responsible person

Dipl. Ing. L. Nagl - ☎ +43-6232-5011-1505

1.4 Emergency telephone

Poison information center Vienna ☎ +43-1-406 43 43

1.5 Date of issue/revision

24.03.2004

2. Composition/Information on ingredients

2.1 Chemical characterisation (preparation)

2.1.1 Description

Contains polycarboxylates and molybdate

2.1.2 Hazardous ingredients

CAS-Nr.:	% mass	R-phrases	Symbol
-	-	-	-

None

2.1.3 Identification numbers

3. Hazards Identification

3.1 Physicochemical hazards

No specific hazards known

3.2 Hazards on human health

No specific hazards known

3.3 Hazards on the environment

No specific hazards known

3.4 Other hazards

No specific hazards known

4. First aid measures

4.1 General recommendations

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4.2 After inhalation

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4.3 After skin contact

Remove contaminated clothing, shoes immediately. Wash affected skin with plenty of water.

4.4 After eye contact

Flush eyes with plenty of water for at least 10 minutes immediately while keeping the eyelids wide open and consult an ophthalmologist

4.5 After ingestion

Rinse mouth and make victim drink plenty of water. Consult doctor

4.6 Advice to doctor

4.6.1 Effects

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5. Fire fighting measures

5.1 Suitable extinguishing media

Water, CO₂, foam, powder. Cool exposed containers with large quantities of water.

5.2 Inappropriate extinguishing media

5.3 Specific hazards

Non combustible

5.4 Special protective equipment

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5.5 Further information

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6. Accidental release measures

6.1 Person-precautions

Avoid eye/skin contact.

6.2 Environmental precautions

Do not allow the undiluted/not neutralized product to enter sewerage systems, sewers, groundwater, rivers, soils. In case of environmental contamination (sewers, rivers, soils) inform fire brigade, police immediately.

6.3 Methods for cleaning up/taking up

Dam large quantities of liquid with sand or earth. Collect the product with suitable means. Place everything into a closed, labelled container compatible with the product. Clean the area with large quantities of water.

7. Handling and storage

7.1 Handling

- | | | |
|-------|------------------------------------|--|
| 7.1.1 | Precautions for safe handling | Keep jerry-cans/containers closed.
In case of proper use no specific measures are necessary |
| 7.1.2 | Fire/explosion preventing measures | Non combustible - no special measures necessary. |
| 7.1.3 | Environmental measures | |
| 7.1.4 | Specific requirements | |

7.2 Storage

- | | | |
|-------|--|--|
| 7.2.1 | Requirements for storage rooms and vessels | Keep jerry-cans/containers closed
Store in a cool, well ventilated plac
Keep away from acids |
| 7.2.2 | Advice on storage compatibility | Keep only in the original containers |
| 7.2.3 | Further information on storage conditions | |
| 7.2.4 | Specific requirements | - |

7.3 Specific use(s)

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8. Exposure controls and personal protection

8.1 Exposure limit values

CAS-No., Hazardous ingredient, Code, Value, Unit

8.2 Exposure controls

- | | | |
|---------|---------------------------------|--|
| 8.2.1 | Occupational exposure controls | |
| 8.2.1.1 | Respiratory protection | None |
| 8.2.1.2 | Hand protection | Protective gloves (natural rubber) |
| 8.2.1.3 | Eye protection | Wear chemical proof eye/face protection |
| 8.2.1.4 | Skin protection | None |
| 8.2.1.5 | Specific hygienic measures | Keep away from food, drink and animal feedingstuffs
Remove contaminated clothing immediately and was before reuse.
Do not eat/drink while working
Wash hands after work/before breaks |
| 8.2.2 | Environmental exposure controls | - |

9. Physical and chemical properties

9.1 General information

- | | | |
|-------|--------|------------|
| 9.1.1 | Form | - |
| 9.1.2 | Colour | liquid |
| 9.1.3 | Odour | colourless |
| | | none |

9.2 Health, safety and environmental information

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|--------|---------------------------------|------------------------|---------------------------------------|
| 9.2.1 | pH-value (as supplied) | T=20°C | approx. 8,5 ± 0,5 |
| 9.2.2 | Changes in physical state | | n.d. |
| | Crystallzation point | | approx. -3°C |
| 9.2.3 | Flash point | | n.a. |
| 9.2.4 | Ignition (solid/gas) | | n.d. |
| 9.2.5 | Ignition temperature | | n.a. |
| 9.2.6 | Autoignition (solid/gas) | | n.a. |
| 9.2.7 | Oxidizing properties | | n.a. |
| 9.2.8 | Explosive properties | | n.a. |
| 9.2.9 | Explosive limits | Lower e.l./Upper e.l.: | none |
| 9.2.10 | Vapour pressure | (TI) 20°C | approx. 23 hPa |
| 9.2.11 | Density | (TI) 20°C | approx. 1.15 ± 0,05 g/cm ³ |
| 9.2.12 | Solubility in water | T=25°C | miscible with soft water |
| 9.2.13 | Partition coefficient (log pOW) | | n.a. |
| 9.2.14 | Viscosity | T=20°C | n.d. |
| 9.2.15 | Solvent separation test | | n.a. |
| 9.2.16 | Solvent concentration | | n.a. |

9.3 Further information

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10. Stability and reactivity

10.1	Conditions to avoid	In case of proper use/handling no hazardous reactions occur
10.2	Materials to avoid	Acids
10.3	Hazardous decomposition products	None
10.4	Further information	-

11. Toxigological information

11.1	Toxicity test	
11.1.1	Acute toxicity (LD ₅₀ /LC ₅₀ values relevant to classification)	Acute toxicity LD ₅₀ > 2000 mg/kg (oral, rat)
	Inhalation	
	Skin contact	Not irritant to eyes/skin
	Eye contact	Not irritant to eyes/skin
	Ingestion	
11.1.2	Corrosiveness/Irritability	
	Inhalation	
	Skin	Not irritant to eyes/skin
	Eye	Not irritant to eyes/skin
	Ingestion	-
11.1.3	Sensitization, carcinogenicity, mutagenicity, reproductive toxicity	No sensibilization known
11.1.4	Further information	

12. Ecological information

12.1	Data on elimination (persistence and degradability)	Eliminiable in the 3 rd treatment stage of sewage plants (flocculation).
12.1.1	Aquatic toxicity	
12.1.2	Possible impacts on sewage treatment plants	In case of proper discharge into well adapted sewage treatment plants, no obstructions of the activated sludge activity occur
12.2	Mobility	
12.2.1	Distribution to environmental compartments	
12.2.2	Surface tension	
12.2.3	Absorption/Desorption	
12.3	Persistence and degradability	
12.4	Bioaccumulative potential	
12.5	Other adverse ewffects	
12.5.1	COD-value	mg/kg -
12.5.2	BOD-values	mg/g -
12.5.3	AOX	No organic halogens contained
12.5.4	Heavy metals content-	
12.5.5	General informations	Follow local regulations. Do not allow the undiluted/not neutralized product to enter sewerage systems, sewers, groundwater, rivers, soils

13. Disposal considerations

13.1	Substance/Preparation	-
13.1.1	Disposal recommendations	There are no uniform EC regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated individually in the EC member countries. We recommend to contact the local authorities in charge or approved waste disposal company
13.1.2	Code according to European Waste Catalogue	
13.1.3	Name according to European Waste Catalogue	
13.2	Contaminated packaging	
13.2.1	Disposal/cleaning recommendations	Disposal in compliance with official regulations. Handle contaminated packaging like the substance itself. If not officially specified differently, non-contaminated packaging may be reused, treated like household waste or recycled
13.2.21	Recommended Cleansing agent	Water
13.3	Further information	

14. Transport information

**No subject
to transport regulations**

15. Regulatory information**15.1 Labelling according to EC-regulations**

15.1.1 Labelling	No dangerous good according to EC directives
15.1.2 Hazards symbols and hazard classification	No labelling necessary
15.1.3 Hazardous component(s), % mass	None
15.1.4 R-phrases substance/preparation	None
15.1.5 S-phrases substance/preparation	S 1/2 Keep locked up and out of the reach of children S 24/25 Avoid eye/skin contact

15.2 National regulations

15.2.1 Restriction of occupation	-
15.2.2 Degree of interference/remarks	-
15.2.3 Classification according to VbF/remarks	-
15.2.5 Water hazard class (german only)	WGK 1: slightly polluting (own classification)

16. Other information

16.1 List of relevant R-phrases	-
16.2 Changed items	1-2-3-16

The information of this safety data sheet is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precaution. It does not represent a guarantee of the properties of the product.