

Material Safety Data Sheet

Material: 60009655

CAVASOL® W7 MCT (Monochlorotriazinyl-
Beta-Cyclodextrin Na-Salt)

Version: 1.3 (US)

Date of print: 03/14/2006

Date of last alteration: 11/29/2004

1 Product and company identification**1.1 Identification of the substance or preparation:**

Commercial product name: CAVASOL® W7 MCT (Monochlorotriazinyl-
Beta-Cyclodextrin Na-Salt)

Use of substance / preparation: Industrial.
Textile auxiliary agent .
All other areas of application to be agreed with the
Application Engineering/ Technical Marketing Department
of the manufacturer.

1.2 Company/undertaking identification:

Manufacturer/distributor: Wacker Chemie AG
Hanns-Seidel-Platz 4
81737 München
Germany

Customer information: WACKER FINE CHEMICALS
Tel (517)264-8165, Fax (517) 264-8795Hours of
operation:
Monday - Friday ,8 am to 5 pm (eastern standard time)
Corporate Website: www.wacker.com

Emergency telephone no. (24h): (517) 264-8500
Transportation emergency: (800) 424-9300 (CHEMTREC, USA)

This MSDS was prepared by the Regulatory Affairs and Product Safety Department (RAPS) of Wacker
Chemical Corporation.

2 Composition/information on ingredients**2.1 Chemical characterization (substance):**

CAS No.	Chemical characteristics
187820-08-2	6-(2-chloro-4-hydroxy)-1,3,5-triazinyl-cycloheptaamylose, sodium salt

2.2 Information on ingredients:

Type	CAS No.	Substance	Content [wt. %]		Note
			Lower	Upper	
INHA	497-19-8	Sodium carbonate	1.0	<=5.0	

Type: HYD - by-product upon hydrolysis, INHA - ingredient, NEBE - by-product, MONO - residual
monomer, VERU - impurity, VUL - by-product upon vulcanization. *** **Note:** C1 - IARC carcinogen,
C2 - NTP carcinogen, C3 - OSHA carcinogen, NH - non-hazardous, R - reproductive toxin.

Substances listed in the Subsections HAPS and California Proposition 65 Carcinogens /
Reproductive Toxins that are not listed in Section 2 are only present at quantities below 0.1%
or they are inextricably bound in the product.

3 Hazards identification**3.1 Hazards classifications****HMIS® rating (product as packaged):**

Health: 1

Fire: 1

Reactivity: 0

PPE: E

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Note: Respiratory protection is only recommended in the event that ventilation or engineering controls are unable to maintain exposures below recommended levels; or in the event of a spill or other emergency response situation. (HMIS codes are based on contact with the product as packaged and any hydrolysis by-products, if present.) Hazardous Materials Identification System and HMIS are registered trademarks of the National Paint and Coatings Association.

Canadian WHMIS Classification: None.

3.2 Emergency overview and potential hazards

This material is not hazardous under OSHA criteria. This material is not hazardous under WHMIS criteria.

Physical Hazards:

Nuisance dust.

Acute health effects**Route of entry or possible contact:**

skin , inhalation (in case of dust formation) , eyes , ingestion

Eye contact:

May cause slight eye irritation.

Skin contact:

No acute toxic effects are expected.

Inhalation:

No acute toxic effects are known.

Ingestion:

Not expected in industrial use.

Additional information on acute health effects:

See Sect. 16.1 "Additional information".

3.3 Further information:**Chronic health effects:**

none known

Medical conditions which may be aggravated by exposure:

none known

Carcinogens/Reproductive toxins:

There are no carcinogenic ingredients present at or over 0.1% in this material. This material does not contain any reproductive toxins at or above OSHA or WHMIS reportable levels.

See Section 11 for Toxicological Information, if any.

4 First-aid measures**4.1 General information:**

Get medical attention if irritation or other symptoms occur. Take a copy of the Safety Data Sheet when going for medical treatment. Before seeking medical attention remove contaminated clothing and shoes.

4.2 After inhalation:

If inhaled as dust, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.

4.3 After contact with the skin:

If contact with skin, immediately flush skin with plenty of water for at least 15 min.

4.4 After contact with the eyes:

If contact with eyes, immediately hold eyelids apart and flush with plenty of water for at least 15 min.

4.5 After swallowing:

For ingestion, if conscious, give several glasses of water but do not induce vomiting. If vomiting does occur, give additional fluids. Get medical attention if symptoms occur. Show label if possible.

5 Fire-fighting measures**5.1 Flammable properties:****Method**

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Boiling point / boiling range.....: not applicable

Lower explosion limit (LEL).....: 80 g/m³

Upper explosion limit (UEL).....: not determined

5.2 Fire and explosion hazards:

The product is a combustible organic dust and under special conditions dust explosion is possible. Electrostatic charging is possible.

5.3 Recommended extinguishing media:

water-spray , carbon dioxide, dry chemical or foam-type extinguishing media .

5.4 Unsuitable extinguishing media:

sharp water jet .

5.5 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:

Hazardous combustion products: hydrogen chloride , hydrogen cyanide , carbon dioxide , carbon monoxide , nitrous gases .

5.6 Fire fighting procedures:

Fire fighters should wear full protective clothing including a self-contained breathing apparatus. Cool endangered containers with water.

6 Accidental release measures**6.1 Precautions:**

Avoid dust formation. Do not breathe dust. Wear personal protection equipment (see section 8).

HAZWOPER PPE Level: D

6.2 Containment:

Prevent material from entering sewers or surface waters. Cover any spilled material in accordance with regulations to prevent dispersal by wind.

Spills of material which could reach surface waters must be reported to the United States Coast Guard National Response Center's toll free phone number (800) 424-8802.

6.3 Methods for cleaning up:

Take up mechanically and dispose of according to local/state/federal regulations.

7 Handling and storage**7.1 Handling****Precautions for safe handling:**

Avoid dust formation.

Precautions against fire and explosion:

Observe the general rules for fire prevention. Danger of dust explosion with dry product. Take precautionary measures against dust explosion. Take precautionary measures against electrostatic charging. Keep away from sources of ignition and do not smoke.

7.2 Storage**Conditions for storage rooms and vessels:**

Do not store in containers made of aluminum or other light metals.

Advice for storage of incompatible materials:

none known .

Further information for storage:

Protect against moisture.

8 Exposure controls and personal protection**8.1 Engineering controls****Ventilation:**

Use with adequate ventilation.

Local exhaust:

Recommendation in case of dust formation: Local exhaust ventilation which meets the requirements of ANSI Z9.2 is recommended to control airborne contaminants at the point of use.

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**8.2 Associate substances with specific control parameters such as limit values
Maximum airborne concentrations at the workplace**

CAS No.	Material	Type	mg/m ³	ppm	Dust fract.
	Particulates not otherwise classified	OSHA PEL	15.0		Inhalable dust
	Particulates not otherwise classified	OSHA PEL	5.0		Respirable dust
	Particulates not otherwise classified	ACGIH TWA	10.0		Inhalable dust
	Particulates not otherwise classified	ACGIH TWA	3.0		Respirable dust

Re Particulates not otherwise classified: The value is for particulate matter containing no asbestos and < 1% crystalline silica (ACGIH).

8.3 Personal protection equipment (PPE)

Respiratory protection:

Recommendation in case of dust formation: A NIOSH approved particulate respirator with a P95 or higher rating.

Hand protection:

Recommendation: Any liquid-tight rubber or vinyl gloves.

Eye protection:

Recommendation: Safety glasses with side shields or chemical safety goggles. Recommendation in case of dust formation: tight fitting chemical safety goggles .

Other protective clothing or equipment:

Additional protective clothing or equipment is not normally required.

8.4 General hygiene and protection measures:

Do not breathe dust/vapor/mist/gas/aerosol. Do not eat, drink or smoke when handling. Wash thoroughly after handling.

9 Physical and chemical properties

9.1 Appearance

Physical state / form.....: solid - powder
 Colour.....: white
 Odour.....: odourless

9.2 Safety parameters

Melting point / melting range.....: not applicable
 Boiling point / boiling range.....: not applicable
 Lower explosion limit (LEL).....: 80 g/m³
 Upper explosion limit (UEL).....: not determined
 Vapour pressure.....: not applicable
 Bulk density.....: 380 kg/m³
 Water solubility / miscibility.....: 300 g/l at 25 °C (77 °F)
 pH-Value.....: 9 - 11 (300 g/l H₂O)
 Distribut. coeff. n-octanol/water....: < 0.000 (Log p_{ow})
 Viscosity (dynamic).....: not applicable

Method

9.3 Further information

Thermal decomposition.....: not determined
 Median value: < 20 µm (original)
 Heating value: 13 MJ/kg
disturbed dust
 Dust explosion class: 1
 Kst value.....: 133 m*bar/sec
 Maximum explosion pressure: 9.4 bar
 Ignition temperature: 500 °C (932 °F)
 Minimum ignition energy: > 1000 mJ without induction
 Minimum ignition energy: > 1000 mJ with induction

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deposited dust
 Burning behavior: 4 at 100 °C (212 °F)
 Burning behavior: 4 at 20 °C (68 °F)
 Glow temperature: 300 °C (572 °F)

10 Stability and reactivity

- 10.0 **General information:**
 If stored and handled in accordance with standard industrial practices no hazardous reactions are known.
- 10.1 **Conditions to avoid:**
 high temperatures .
- 10.2 **Materials to avoid:**
 Reacts with: amines , lyes , oxidizing agents and acids .
- 10.3 **Hazardous decomposition products:**
 none known .
- 10.4 **Further information:**
 Hazardous polymerization cannot occur.
 Conditions to avoid hazardous polymerization: none known

11 Toxicological information

- 11.1 **General information:**
 Toxicological testing has been conducted with this material.
- 11.2 **Toxicological data:**

Acute toxicity (LD50/LC50-values relevant to classification):

Exposition	Value/value range	Species	Source
oral	> 2000 mg/kg	rat (Limit Test)	test report
dermal	> 2000 mg/kg	rat (Limit Test)	test report

Primary irritation:

Exposition	Effect	Species/Testsystem	Source
to skin	not irritating	rabbit	test report
to eyes	mildly irritating	rabbit	test report

Sensitization:

Exposition	Effect	Test method	Species	Source
to skin	not sensitizing	Magnusson-Kligmann	guinea-pig	test report

Subacute to chronic toxicity:

Species	Test method	End point	Value	Source
rat	Repeated Dose 28-day Oral Toxicity Study in Rodents	NOAEL	1000 mg/kg/h/d	test report

Reference points for mutagenic (carcinogenic) potential:

Test system	Effect	Source
Bacterial Reverse Mutation Test	not mutagenic	test report
In vitro Mammalian Chromosomal Aberration Test	not mutagenic	test report

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12 Ecological information**12.1 Information on elimination (persistence and degradability)****Biodegradation:**

Method	Degree of elimination	Classification	Source
CO2 Evolution Test/Modified Sturm Test	< 21 %, in 28 day(s)	Not easily biodegradable.	test report

Further information:

-

12.2 Behaviour in environmental compartments**Mobility**

-

Further information:

Bioaccumulation is not expected to occur. log POW <= 3.0

12.3 Ecotoxicological effects:

Species	Test method	Exp. Time	Result	Source
Daphnia magna	acute	48 h	> 100 mg/l (NOEC)	test report
Daphnia magna	acute	48 h	> 100 mg/l (EC50)	test report
carp (Cyprinus carpio)	acute	96 h	> 100 mg/l (LC50)	test report
Selenastrum capricornutum	acute	72 h	> 100 mg/l (IC50)	test report

No expected damaging effects to water organisms.

Effects in sewage treatment plants (bacteria toxicity: respiration-/reproduction inhibition):

Test system	Exp. Time	Result	Source
sludge	0,5 h	> 100 mg/l (EC10)	test report

According to current knowledge adverse effects on water purification plants are not expected.

12.4 Additional information**Other harmful effects**

-

General information:

Prevent material from introduction into surface water and into soil. Only introduce into water purification plants in diluted state. No environmental problems expected if handled and treated in accordance with standard industrial practices and local regulations where applicable.

13 Disposal considerations**13.1 Product disposal****Recommendation:**

Dispose of according to regulations by incineration in a special waste incinerator. Observe local/state/federal regulations.

13.2 Packaging disposal**Recommendation:**

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations. Uncleaned packaging should be treated with the same precautions as the material.

Recommended cleaning agent:

water .

14 Transport information**14.1 US DOT & CANADA TDG SURFACE**

Valuation.....: Not regulated for transport

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14.2 Transport by sea IMDG-Code

Valuation.....: Not regulated for transport
Marine Pollutant.....: no

14.3 Air transport ICAO-TI/IATA-DGR

Valuation.....: Not regulated for transport

15 Regulatory information**15.1 U.S. Federal regulations****TSCA inventory status and TSCA information:**

This material or its components are listed on or are in compliance with the requirements of the TSCA Chemical Substance Inventory.

TSCA 12(b) Export Notification:

This material does not contain any TSCA 12(b) regulated chemicals.

CERCLA Regulated Chemicals:

This material does not contain any CERCLA regulated chemicals.

SARA 302 EHS Chemicals:

This material does not contain any SARA extremely hazardous substances.

SARA 311/312 Hazard Class:

This product does not present any SARA 311/312 hazards.

SARA 313 Chemicals:

This material does not contain any SARA 313 chemicals above de minimus levels.

HAPS:

This material does not contain any hazardous air pollutants.

15.2 U.S. State regulations**California Proposition 65 Carcinogens:**

This material does not contain any chemicals known to the state of California to cause cancer.

California Proposition 65 Reproductive Toxins:

This material does not contain any chemicals known to the state of California to cause reproductive effects.

Massachusetts Substance List:

This material contains no listed components.

New Jersey Right-to-Know Hazardous Substance List:

This material contains no listed components.

Pennsylvania Right-to-Know Hazardous Substance List:

This material contains no listed components.

15.3 Canadian regulations

This product has been classified in accordance with the Hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS Hazard Classes:

None.

DSL Status:

This material or one or more of its components is not listed on the Canadian Domestic Substances List.

Non-DSL Chemicals:

CAS No.	Chemical	Upper limit wt. %
187820-08-2	6-(2-Chlor-4-hydroxy)-1,3,5-Triazenyl-beta-Cyclodextrin	96.0

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Canadian Ingredient Disclosure List:

This material contains no listed components.

15.4 Other international regulations**EU Risk Phrases:**

R-Phrase	Description
R-	-

EU Safety Phrases:

S-Phrase	Description
S-	-

Details of international registration status

Listed on the following inventories:

ENCS - Japan
HSNO - New Zealand**16 Other information****16.1 Additional information:**

This Material Safety Data Sheet (MSDS) meets the requirements of the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200). This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR. This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief accurate and reliable as of the date compiled. However, no representation, warranty or guarantee expressed or implied, is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information. Nothing herein shall be construed as a recommendation for uses which infringe valid patents or as extending a license under valid patents. This MSDS provides selected regulatory information on this product, including its components. This is not intended to include all regulations. It is the responsibility of the user to know and comply with all applicable rules, regulations and laws relating to the product being used.

16.2 Glossary of Terms:ACGIH - American Conference of Governmental
Industrial Hygienists
DOT - Department of Transportation
hPa - Hectopascals
mPa*s - Milli Pascal-Seconds
OSHA - Occupational Safety and Health Administration
PEL - Permissible Exposure Limitppm - Parts per Million
SARA - Superfund Amendments and Reauthorization Act
STEL - Short Term Exposure Limit
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average
WHMIS - Canadian Workplace Hazardous Materials
Identification System**Flash point determination methods**ASTM D56
ASTM D92, DIN 51376, ISO 2592
ASTM D93, DIN 51758, ISO 2719
ASTM D3278, DIN 55680, ISO 3679
DIN 51755**Common name**Tagliabue (Tag) closed cup
Cleveland open cup
Pensky-Martens closed cup
Setaflash or Rapid closed cup
Abel-Pensky closed cup**16.3 Conversion table:**Pressure: 1 hPa * 0.75 = 1 mm Hg = 1 Torr; 1 bar = 1000 hPa
Viscosity: 1 mPa*s = 1 Centipoise (Cp)