

**Material Safety Data Sheet**

Material: 60006994 CAVAMAX® W7 PHARMA

Version: 2.2 (US) Date of print: 03/14/2006 Date of last alteration: 09/07/2005

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

Commercial product name: CAVAMAX® W7 PHARMA  
Product group: Cyclodextrin  
Use of substance / preparation: Industrial.  
Auxiliary agent for: medicine .

**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) 264-8795  
Hours 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
7585-39-9	Cycloheptaamylose

**2.2 Information on ingredients:**

This material does not contain any hazardous substances at or above OSHA and WHMIS reportable levels.

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% for California Proposition 65 listed toxins or below 1% for non-carcinogenic HAPS or they are inextricably bound in the product.

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

Health: 1 Fire: 2 Reactivity: 0 PPE: E

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. Hazardous Materials Identification System and HMIS are registered trademarks of the National Paint and Coatings Association. (HMIS codes are based on contact with the product as packaged and any hydrolysis by-products, if present.)

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.

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

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

**Eye contact:**

May cause slight eye irritation.

**Skin contact:**

May cause slight skin irritation.

**Inhalation:**

No acute toxic effects are expected.

**Ingestion:**

Not expected in industrial use.

**Additional information on acute health effects:**

odourless

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

According to literature: Animal tests have not revealed any carcinogenic effects.

**Medical conditions which may be aggravated by exposure:**

unknown

**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 occurs or if breathing becomes difficult.

**4.2 After inhalation:**

If inhaled, remove to fresh air. Get medical attention if symptoms occur.

**4.3 After contact with the skin:**

If contact with skin, wash skin with plenty of water or with water and soap.

**4.4 After contact with the eyes:**

If contact with eyes, immediately flush eyes with plenty of water.

**4.5 After swallowing:**

If swallowed, give victim several glasses of water. Get medical attention if symptoms occur.

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

Flash point.....: not applicable

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

Lower explosion limit (LEL).....: 60 g/m<sup>3</sup>

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

Ignition temperature .....: not applicable

**Method****5.2 Fire and explosion hazards:**

Risk of dust explosion. Electrostatic charging is possible. Never use welding or cutting torch on or near any container of this material, even if empty, because an explosion could occur.

**5.3 Recommended extinguishing media:**

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

**5.4 Unsuitable extinguishing media:**

none known

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

Hazardous combustion products: carbon dioxide , carbon monoxide and incompletely burnt hydrocarbons .

**5.6 Fire fighting procedures:**

Use respiratory protection independent of recirculated air.

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**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:**

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. Avoid dust formation. Clean up with plenty of water. Dispose of cleansing water in accordance with local/state/federal regulations.

**6.4 Further information:**

Consider explosion protection. Eliminate all sources of ignition.

**7 Handling and storage****7.0 General information:**

No special protective measures required.

**7.1 Handling****Precautions for safe handling:**

Avoid dust formation.

**Precautions against fire and explosion:**

Observe the general rules for fire prevention. Avoid dust deposit, remove dust regularly. Take precautionary measures against electrostatic charging. Take precautionary measures against dust explosion.

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

Observe precautionary measures against dust explosion.

**Advice for storage of incompatible materials:**

none known .

**Further information for storage:**

Keep container tightly closed.

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

Use only with adequate ventilation.

**Local exhaust:**

In case of dust formation: yes (to maintain concentration below TLV) .

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

CAS No.	Material	Type	mg/m <sup>3</sup>	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 &lt; 1% crystalline silica (ACGIH) .

**8.3 Personal protection equipment (PPE)****Respiratory protection:**

In case of dust formation use a NIOSH approved respirator for: fine dust .

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**Hand protection:**

Recommendation: antistatic protective gloves .

**Eye protection:**

In case of dust formation: chemical safety goggles .

**Other protective clothing or equipment:**

Recommendation in case of dust formation: antistatic clothing and shoes .

**8.4 General hygiene and protection measures:**

Avoid breathing 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****Method**Melting point / melting range.....: not applicable  
Boiling point / boiling range.....: not applicable  
Flash point.....: not applicable  
Ignition temperature .....: not applicable  
Lower explosion limit (LEL).....: 60 g/m<sup>3</sup>  
Upper explosion limit (UEL).....: not determined  
Vapour pressure.....: not applicable  
Bulk density.....: approx. 600 kg/m<sup>3</sup>  
Water solubility / miscibility.....: 18.5 g/l at 25 °C (77 °F)  
pH-Value.....: not applicable  
Viscosity (dynamic).....: not applicable**9.3 Further information**Thermal decomposition.....: > 250 °C (> 482 °F)  
Median value .....: 55 µm (original)  
**disturbed dust**  
Dust explosion class .....: 1  
Kst value.....: 114 m\*bar/sec  
Maximum explosion pressure .....: 8.7 bar  
Ignition temperature .....: 470 °C (878 °F)  
Minimum ignition energy .....: 100 - 300 mJ without induction (EN 13821)  
Minimum ignition energy .....: 30 - 100 mJ with induction (EN 13821)  
**deposited dust**  
Burning behavior .....: 5 at 20 °C (68 °F)  
Burning behavior .....: 5 at 100 °C (212 °F)  
Glow temperature .....: > 400 °C (> 752 °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:**

none known .

**10.2 Materials to avoid:**

oxidizing agents .

**10.3 Hazardous decomposition products:**

If stored and handled in accordance with standard industrial practices and local regulations where applicable: none known .

**10.4 Further information:**

Hazardous polymerization cannot occur.

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**11 Toxicological information****11.1 General information:**

The following data were taken from literature.

**11.2 Toxicological data:**

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

Exposition	Value/value range	Species	Source
oral	> 12000 mg/kg	rat	literature
dermal	> 2000 mg/kg	rat	literature
by inhalation	> 4.9 mg/l/4h (spray / dust)	rat	literature

Primary irritation:

Exposition	Effect	Species/Testsystem	Source
to skin	mildly irritating	rabbit	literature
to eyes	mildly irritating	rabbit	literature

Sensitization:

Exposition	Effect	Test method	Species	Source
to skin	not sensitizing	other	guinea-pig	literature

Subacute to chronic toxicity:

Species	Test method	End point	Value	Source
rat	Repeated Dose 28-day Oral Toxicity Study in Rodents	NOEL	4400 mg/kg/d	literature

Reference points for mutagenic (carcinogenic) potential:

Test system	Effect	Source
Bacterial Reverse Mutation Test	not mutagenic	literature
In vitro Mammalian Chromosomal Aberration Test	not mutagenic	literature
Mammalian Erythrocyte Micronucleus Test	not mutagenic	literature

Experience with man:

-

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

Biodegradation:

Method	Degree of elimination	Classification	Source
Inherent Biodegradability: Zahn-Wellens/EMPA Test	82 %, in 28 day(s)	Good elimination.	test report

Further information:

-

**12.2 Behaviour in environmental compartments**

Mobility

-

Further information:

No adverse effects expected.

**12.3 Ecotoxicological effects:**

Species	Test method	Exp. Time	Result	Source
carp (Cyprinus carpio)	acute	96 h	7561 mg/l (LC50)	test report

No expected damaging effects to aquatic organisms.

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

Test system	Exp. Time	Result	Source
Pseudomonas putida	16 h	> 10000 mg/l (EC10)	test report

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

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**12.4 Additional information**

**BOD5-Value:** 700 mg O<sub>2</sub>/g Substance (test report)  
**COD-Value:** 1090 mg O<sub>2</sub>/g Substance (test report)  
**BSB5/CSB:** 0.64

**Other harmful effects**

-

**General information:**

According to our present knowledge no further data known. 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. Small quantities may be disposed of by incineration in an approved facility. 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.

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

Valuation.....: Not regulated for transport

**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 (Hazardous Air Pollutants):**

108-88-3 Toluene

**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.

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**California Proposition 65 Reproductive Toxins:**

108-88-3 Toluene

**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 its components are listed on the Canadian Domestic Substances List.

**Non-DSL Chemicals:**

This material does not contain any non-DSL chemicals.

**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:

IECSC - China  
PICCS - Philippines  
ENCS - Japan  
ECL - Korea  
AICS - Australia  
EINECS - Europe  
HSNO - New Zealand

**16 Other information****16.1 Additional information:**

Kosher: Yes

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

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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 Limit

ppm - 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)