



## Material Safety Data Sheet

chemec

### Section I. Chemical Product and Company Identification

<b>Product Name/ Trade Name</b>	<b>DARVAN® 2</b>	<b>Code</b>	14004
<b>Supplier</b>	<b>R.T. VANDERBILT COMPANY, INC. 30 WINFIELD STREET NORWALK, CT 06855</b>	<b>CAS#</b>	8061-51-6
<b>Synonym</b>	Sodium lignin sulfonate	<b>In case of Emergency</b>	<b>Call (203)853-1400</b>
<b>Chemical Name</b>	Lignosulfonic acid, sodium salt		
<b>Chemical Family</b>	Not available.		
<b>Chemical Formula</b>	Not applicable.		
<b>Material Uses</b>	Industrial applications: Dispersing agent. Emulsifying agent.		

### Section II. Composition and Information on Ingredients

Name	CAS #	% by Weight
sodium ligno sulfonate	8061-51-6	94
water	7732-18-5	6

### Section III. Hazards Identification

<b>Emergency Overview</b>	Dark brown powder. No acute adverse effects known. Repeated or excessive inhalation of dust may cause respiratory irritation. Dust suspended in air in critical proportions and in the presence of an ignition source may present an explosion hazard.
---------------------------	--

### Section IV. First Aid Measures

<b>Eye Contact</b>	Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used.
<b>Skin Contact</b>	After contact with skin, wash immediately with plenty of water. Wash contaminated clothing before reusing
<b>Inhalation</b>	Allow the victim to rest in a well ventilated area. Seek immediate medical attention
<b>Ingestion</b>	Do not induce vomiting. Immediately give two glasses of water, a little at a time. Never give anything by mouth to an unconscious person. Call a physician. If vomiting occurs spontaneously, lower head below waist to prevent fluid from entering the lungs

**Section V. Fire and Explosion Data**

<b>Flammability of the Product</b>	Not available.
<b>Auto-Ignition Temperature</b>	Not available.
<b>Flash Points</b>	Not available.
<b>Flammable Limits</b>	LEL - 0.2 oz/cu fl UEL - Unknown
<b>Products of Combustion</b>	carbon oxides (CO, CO2) sulfur oxides (SO2, SO3...)
<b>Explosion Hazards in Presence of Various Substances</b>	Dust explosion potential not evaluated. See remarks below.
<b>Fire Fighting Media and Instructions</b>	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
<b>Special Remarks on Fire Hazards</b>	Burning of solids may provide conditions for dust explosion.
<b>Special Remarks on Explosion Hazards</b>	As with any dry material, pouring or allowing to free-fall or to be conveyed through chutes or pipes can accumulate and generate electrostatic sparks, potentially causing ignition of the material itself, or of any flammable materials which may come in contact with the material or its container.

**Section VI. Accidental Release Measures**

<b>Small Spill</b>	Put spilled solid in a waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
<b>Large Spill</b>	Evacuate area of nonessential personnel. Use safety glasses and gloves. Respiratory protection is required only if a dust is generated. Scoop or shovel spilled solids into containers. Avoid creating a dust. Prevent spilled product or contaminated wash water from entering drinking water supplies or streams.

**Section VII. Handling and Storage**

<b>Storage</b>	Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.
<b>Handling Procedures and Equipment</b>	Avoid breathing dust. After handling, always wash hands thoroughly with soap and water

**Section VIII. Exposure Controls/Personal Protection**

<b>Engineering Controls</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
<b>Personal Protection</b>	Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
<b>TLV/PEL</b>	Standard For Particulates (N.O.C.) OSHA 5 mg/cu m (respirable dust); 15 mg/cu m (total dust) ACGIH 10 mg/cu m (total dust)

**Section IX. Physical and Chemical Properties**

<b>Appearance</b>	Brown. (Dark.)    Solid. (Powder.)
<b>Molecular Weight</b>	Not applicable.
<b>pH (1% soln/water)</b>	8 [Basic.]
<b>Boiling/Condensation Point</b>	Not available.
<b>Melting/Sublimation Point</b>	Not available.
<b>Specific Gravity</b>	1.25
<b>Density</b>	1.25 g/ml at 25°C (77°F)
<b>Vapor Pressure</b>	Not applicable.
<b>Vapor Density</b>	Not available.
<b>Volatility</b>	Not available.
<b>Odor / Odor Threshold</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Water/Oil Dist. Coeff.</b>	The product is more soluble in water.
<b>Solubility</b>	Easily soluble in methanol, acetone. Partially soluble in cold water. Very slightly soluble in diethyl ether. Insoluble in n-octanol.

**Section X. Stability and Reactivity Data**

<b>Stability</b>	The product is stable.
<b>Instability Temperature</b>	Not available.
<b>Conditions of Instability</b>	Not available.
<b>Incompatibility with Various Substances</b>	Reactive with oxidizing agents, acids.
<b>Corrosivity</b>	Not available.
<b>Special Remarks on Reactivity</b>	Not available.

**Section XI. Toxicological Information**

<b>Routes of Entry</b>	Inhalation. Ingestion.
<b>Toxicity to Animals</b>	LD50: Not available. LC50: Not available.
<b>Special Remarks on Toxicity to Animals</b>	Not available.
<b>Acute Effects</b>	
<b>Eye contact</b>	Test data indicate product is not an eye irritant.
<b>Skin contact</b>	Test data indicate product is not a skin irritant.
<b>Sensitization</b>	No data available.

Continued on Next Page

**Ingestion** Ingestion may cause discomfort such as nausea and vomiting.

**Inhalation** Inhalation of dust may cause respiratory irritation.

**Remarks** Not available.

**Chronic Effects on Humans** **CARCINOGENIC EFFECTS** Not available.  
**MUTAGENIC EFFECTS** Not available.  
**DEVELOPMENTAL TOXICITY** Not available.  
**REPRODUCTIVE TOXICITY** Not available.

**Remarks** Not available.

**Section XII. Ecological Information**

**Ecotoxicity** Not available.

**BOD5 and COD** Not available.

**Products of Biodegradation** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Biodegradability** Not available.

**Special Remarks on the Products of Biodegradation** Not available.

**Section XIII. Disposal Considerations**

**Waste information** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**Waste stream** Not available.

**Section XIV. Transport Information**

**ADR Classification** Not controlled under ADR (Europe).



**PIN** Not applicable.

**IMDG Classification.** Not available.

**IATA Classification** Not controlled under IATA.

**HI Kemler** Not available.

**CEFIC Tremcard** Not available.

**UK Hazchem** Not available.

**Special Provisions for Transport** Not applicable.

**Section XV. Other Regulatory Information and Pictograms**

**Regulations Lists** EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

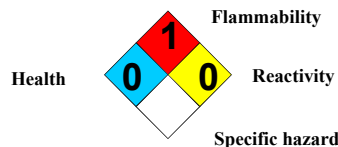
**DSCL (Europe)** This product is not classified according to the EU regulations. Not applicable.



**Hazardous Material Information System (U.S.A.)**

Health Hazard	0
Fire Hazard	1
Reactivity	0
Personal Protection	E

**National Fire Protection Association (U.S.A.)**



**Other Regulations**

TSCA 8(b) inventory: DARVAN® 2

CEPA DSL: DARVAN® 2

Australia: DARVAN® 2

Japan (MITI): DARVAN® 2

Korea (TCCL): DARVAN® 2

**Protective Clothing (Pictograms)**



**Section XVI. Other Information**

**References** Not available.

**Other Special Considerations** Not available.

Validated by Erin A. Bendig on 8/8/2003.

Verified by Erin A. Bendig.

Printed 8/8/2003.

**Information Contact** David Bower, Ph. D. (203) 853-1400 ext. 233  
Corporate Risk Management

**Notice to Reader**

*Information presented herein has been compiled from sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so. Nothing herein is to be construed as recommending any practice or any product in violation of any patent or in violation of any law or regulation. It is the user's responsibility to determine for himself the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary. We make no warranty as to the results to be obtained in using any material and, since conditions of use are not under our control, we must necessarily disclaim all liability with respect to the use of any material supplied by us.*