



# Safety Data Sheet

## CELLOBOND J2027L

Current Revision: 06.12.2005

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

Product Name: CELLOBOND J2027L  
 Product Type: LIQUID PHENOLIC RESIN  
 Application: IMPREGNATING RESIN FOR COMPOSITES

<b>Supplier:</b> Hexion Specialty Chemicals, Inc. 6210 Campground Road Louisville, KY 40216	<b>Distributor:</b> Mektech Composites Inc Strawberry Hill Road Hillsdale, NJ 07642 Tel 201-666-4880	<b>Emergency Phone Numbers:</b> 001 651-632-8952
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### 2. Composition/Information on Ingredients

#### 2.1. Composition

Liquid phenolic resin

#### 2.2. Information on Ingredients

The ingredients listed below have been associated with one or more of the listed immediate and/or delayed(\*) health hazards. Risk of damage and effects depends upon duration and level of exposure. Before Using Or Handling, Read And Understand The Material Safety Data Sheet. The component concentration in the "% Content" column should be read as equal to or above the lower limit value and below the upper limit value.

CAS/Registry No.	Material Description	% Content
108-95-2	<b>Phenol</b> Health Hazard: Toxic (T) R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed. R34 - Causes burns. R48/20/21/22 - Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed R68 - Possible risks of irreversible effects.	7.0 - 10.0

50-00-0

**Formaldehyde**

2.0 - 3.0

Health Hazard: Toxic (T)

R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.

R34 - Causes burns.

R40 - Limited evidence of a carcinogenic effect.

R43 - May cause sensitization by skin contact.

### **3. Hazards Identification**

Health Hazard: Harmful (Xn)

R36/38 - Irritating to eyes and skin.

R40 - Limited evidence of a carcinogenic effect.

R68 - Possible risks of irreversible effects.

R43 - May cause sensitization by skin contact.

### **4. First-aid Measures**

**INGESTION:**

If accidentally swallowed, give large quantities of water or milk to dilute the effects on the stomach. Do not induce vomiting. Seek medical advice.

**INHALATION:**

If inhalation causes adverse effects, remove to fresh air. If problem persists, seek medical advice.

**SKIN CONTACT:**

In case of contact, immediately flush with plenty of water. Remove contaminated clothing. In case of prolonged irritation, seek medical advice.

**EYE CONTACT:**

Immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held apart during irrigation to ensure water contact with entire surface of eyes and lids. Seek immediate medical attention.

### **5. Fire-fighting Measures**

Will not burn unless water has evaporated.

In case of fire, use water spray, dry chemical, foam or carbon dioxide extinguishers. Use water to keep fire-exposed containers cool. For large fires, fire-fighters should wear full emergency protective equipment including self-contained breathing apparatus.

### **6. Accidental Release Measures**

Always wear appropriate protective clothing (refer to "Section 8.2"). Large Quantities: Contain and absorb with sand or sawdust and prevent from entering drains or watercourses; should this occur, the relevant Local Authority must be notified. Small Quantities: Soak up with absorbent material and remove to a chemical disposal area.

### **7. Handling and Storage**

#### **7.1. Handling**

Handle in accordance with good industrial hygiene and safety practices. Refer to Section 8 for appropriate personal protection equipment. Wash thoroughly after handling.

<b>INHALATION:</b>	Avoid prolonged or repeated breathing of vapour.
<b>SKIN CONTACT:</b>	Avoid contact with skin or clothing.
<b>EYES:</b>	Avoid contact with eyes.

## 7.2. Storage

Keep containers tightly closed.

Store in a cool, well-ventilated area.

## 8. Exposure Controls/Personal Protection

### 8.1. Exposure Controls

**ENGINEERING CONTROLS:** The following exposure control techniques may be used to effectively minimize employee exposure: local exhaust ventilation, enclosed system design, process isolation and remote control in combination with appropriate use of personal protective equipment and prudent work practices. These techniques may not necessarily address all issues pertaining to your operations. We, therefore, recommend that you consult with experts of your choice to determine whether or not your programmes are adequate.

If airborne contaminants are generated when the material is heated or handled, sufficient ventilation in volume and air flow patterns should be provided to keep air contaminant concentrations below acceptable levels. Refer to Section 8.3 which details specific exposure limits where applicable.

### 8.2. Personal Protection

Where air contaminants can exceed acceptable criteria, use approved full facepiece respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminants in air. Wear chemical splash goggles or some other type of complete protection for the eye if contact is likely. Wear protective (impervious) gloves as required to prevent skin contact. Where high concentrations of hazardous ingredients may be present, such as in an emergency, full body protection should be worn. Other protective equipment: Eye wash fountain, safety shower. Reusable protective clothing should be cleaned and ventilated after any formaldehyde contamination.

### 8.3. Exposure Guidelines

<b>Phenol</b>		<b>108-95-2</b>		
UKWEL	8-hr TWA	2 ppm		Skin EH40/2005
<b>Formaldehyde</b>		<b>50-00-0</b>		
UKWEL	8-hr TWA	2 ppm	2.5 mg/m <sup>3</sup>	EH40/2005
	STEL (15 min)	2 ppm	2.5 mg/m <sup>3</sup>	EH40/2005

## 9. Physical and Chemical Properties

Appearance  
Odour

Clear, reddish-brown liquid  
Phenolic

Boiling Point	116 °C
Flash point	> 100 °C Closed Cup
Vapour Pressure	Not available
Flammability	Combustible
Autoignition Temperature	Not available
Upper explosion limit	Not applicable
Lower explosion limit	Not applicable
Oxidizing Properties	Not oxidising
pH	7.5
Relative Density	1.225
Water Solubility	Partial

## 10. Stability and Reactivity

Normally considered stable and inert.

<b>Hazardous polymerisation:</b>	Will not occur.
<b>Materials to avoid:</b>	Strong acids and alkaline materials.
<b>Conditions to avoid:</b>	Heat.
<b>Thermal decomposition products may include:</b>	Oxides of carbon, aldehydes (including formaldehyde), phenols and aromatic hydrocarbons.
<b>Other Hazards:</b>	During processing, vapors of phenol and formaldehyde may be released.

## 11. Toxicological Information

### 11.1. Immediate Hazards

<b>INGESTION:</b>	May be harmful if accidentally swallowed. Irritation to mucous membranes, oesophagus or gastro-intestinal tract can result.
<b>INHALATION:</b>	Irritating to respiratory system. Liquid or vapour may cause irritation of nose, throat and lungs.
<b>SKIN:</b>	Irritating to skin.
<b>EYES:</b>	Irritating to eyes.

The acute toxicological effects of this material have been derived from animal test data carried out on products of similar composition. Those tests have shown:

LD50 oral (rat): >2000 mg/kg  
 LD50 dermal (rat): >2000 mg/kg  
 Skin irritation(rabbit): Slight irritant  
 Eye irritation(rabbit): Slight irritant.

<b>108-95-2</b>	<b>Phenol</b> Can cause central nervous system effects. Signs and symptoms may include headache, dizziness, nausea, vomiting, motor difficulties and unconsciousness.
<b>50-00-0</b>	<b>Formaldehyde</b>

Formaldehyde is a pungent gas which can cause irritation to the eyes and upper respiratory tract. Most people can detect formaldehyde at 0.5 ppm and at 2 ppm noticeable unpleasant irritation affects the eyes, nose and throat.

## 11.2. Delayed Hazards

**108-95-2**

### **Phenol**

Possible risk of irreversible effects. This material has been classified by the EU as a Category 3 mutagen - substances which cause concern for man owing to possible mutagenic effects.

Can cause liver and kidney damage. Signs and symptoms of chronic poisoning may include vomiting, difficulty in swallowing, diarrhoea, lack of appetite, jaundice, fatigue, bleeding or easy bruising and sometimes pain and swelling in the upper right abdomen, changes in urine output or dark urine, pain upon urination or in the lower back, or general oedema. Can also cause cardiac damage evidenced by shortness of breath and in severe cases cardiac arrest. Pre-existing medical conditions of the heart, kidney, liver, lung, eyes and skin may be aggravated by exposure.

**50-00-0**

### **Formaldehyde**

Rats chronically exposed to 14 ppm formaldehyde contracted nasal cancer. The International Agency for Research on Cancer (IARC) has concluded formaldehyde is carcinogenic to humans. Formaldehyde has been classified by the EEC as a Category 3 carcinogen - substances which cause concern for man owing to possible carcinogenic effects.

Safe handling and use instructions are provided in this MSDS. Please review and understand the guidance contained in this MSDS and refer to the UK Health and Safety Executive (HSE), the French Institut National de Recherche et de Securite (INRS) or other prevailing national government required standards.

For further information and a review of various studies, go to [www.hse.gov.uk](http://www.hse.gov.uk), [www.iarc.fr](http://www.iarc.fr) and other authoritative websites.

May cause sensitization by skin contact.

## 12. Ecological Information

<b>Mobility:</b>	Partially water soluble
<b>Degradability:</b>	Not tested but expected to be relatively persistent, not easily biodegraded.
<b>Bioaccumulative potential:</b>	Not determined.
<b>Aquatic toxicity:</b>	Toxicity to bacteria, algae and higher marine organisms not tested. COD: Not determined.

### 13. Disposal Considerations

DO NOT reuse containers containing residual product without commercial cleaning. All waste should be disposed of using a Registered Waste Carrier operating under the Environmental Protection Act (Duty of Care) Regulations 1992 (S.I. No. 2839).

### 14. Transport Information

#### International transport regulations

- **ADR/RID**  
Regulation: Non regulated
- **IMO/IMDG**  
Regulation: Non regulated
- **IATA (Passenger)**  
Regulation: Non regulated

### 15. Regulatory Information

#### 15.1. EU Regulations

<b>Classification</b>	Health Hazard: Harmful (Xn)
	Contains: Phenol Formaldehyde
<b>Risk phrases</b>	R36/38 - Irritating to eyes and skin. R40 - Limited evidence of a carcinogenic effect. R68 - Possible risks of irreversible effects. R43 - May cause sensitization by skin contact.
<b>Safety phrases</b>	S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S35 - This material and its container must be disposed of in a safe way. S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection. S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

#### 15.2. Other Regulations

This document has been produced in accordance with the Safety Data Sheet Directive, 91/155/EC, as amended by 2001/58/EC. It complies with 2004/73/EC, the 29th adaptation to the Dangerous Substances Directive, 67/548/EC, and 2001/60/EC, the 1st adaptation to the Dangerous Preparations Directive, 1999/45/EC.

Users should satisfy themselves that they have considered any regulations which may apply to the transport, storage, use and disposal of this material and that they comply with the relevant national legislation. A duty of care exists for the user to control Occupational Exposure and Environmental Pollution.

## **16. Other Information**

Further technical information may be obtained from Hexion Specialty Chemicals, Inc.

### Notice to Users:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determinations of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.