Georgia-Pacific Chemicals

NFPA Ratings
Flammability
Health 2 | 0 Reactivity
Specific

Material Safety Data Sheet

GP® 329G23 RESI-BOND® Phenolic Hardboard Resin

Section 1. Chemical Product and Company Identification

Product / Trade Name	GP® 329G23 RESI-BOND® Phenolic Hardboard Resin
Synonyms	RPPD 329G23
Chemical Family	Phenol-Formaldehyde Resin
Chemical Formula	$(C_6H_6O \cdot CH_2O)_x \cdot xNa$
Manufacturer	**Georgia-Pacific Chemicals LLC** 2883 Miller Road Decatur, GA 30035 (770) 593-6874 (Non-Emergency)
Emergency Phone (24 hours):	**CHEMTREC 1-800-424-9300**

Section 2. Composition and Information on Ingredients

Hazardous Components	CAS #	% by Weight	ACGIH TLV ™	OSHA PEL
Formaldehyde	50-00-0	< 0.1	CEIL: 0.3 ppm	TWA: 0.75 ppm STEL: 2 ppm

TWAs are 8 hour exposures unless otherwise noted. STELs are 15 minute exposures unless otherwise noted.

Section 3. Hazards Identification

HMIS

Health Hazard	2
Fire Hazard	0
Reactivity	0
Personal Protection	

Note: Personal protective equipment (PPE) is related to conditions of use. Determination of PPE is the responsibility of the employer. Refer to *Section 8* **(Exposure Controls / Personal Protection)** of this MSDS for recommendations.

Emergency Overview

Dark red to brown liquid with a slight phenolic odor.

Eye irritation or injury may result from exposure to this product.

Potential Health Effects

Eye contact Contact with liquid or mist can cause moderate to severe eye irritation or injury. Prolonged exposure to vapors released from hot or curing product may cause mild to moderate eye irritation. Symptoms may include redness, watering, itching, or a burning sensation in the eyes.

Skin Contact This product is not a primary skin irritant.

Inhalation	Not acutely toxic by inhalation. However, prolonged inhalation of vapors released from hot or curing product may be irritating to the nose, throat, and lungs. Symptoms may include coughing or shortness of breath, nausea, headaches, or dizziness.
Ingestion	Not orally toxic. In normal industrial use, ingestion is not considered a probable route of exposure.
Chronic	This product contains formaldehyde which may cause cancer. Repeated or prolonged exposure to formaldehyde may cause skin sensitization, dermatitis, or other allergic reactions. The degree of sensitivity varies with individuals.
	This product contains ingredients which may affect the following target organs: **Respiratory system, eyes, skin, kidneys, liver**
	See *Section 11* Toxicological Information for additional information.

Section 4. First Aid Measures

Eye contact	Immediately rinse with water. Remove contact lenses. Hold eyelids apart and flush eyes with water for at least 15 minutes. Get immediate medical attention.
Skin Contact	Wash skin thoroughly with soap and water. Get medical attention if irritation persists. Launder contaminated clothing before reuse.
Inhalation	Remove to fresh air. Rest in half-upright position. Get medical attention if necessary.
Ingestion	If conscious, immediately rinse mouth and give large quantities of milk or water. Get immediate medical attention. Emergency personnel should administer activated charcoal and should avoid lavage because of sodium hydroxide, unless large amounts are ingested and threaten potential toxicity with phenol. Never give anything by mouth to an unconscious person.

Section 5. Fire and Explosion Data

Fire Hazards	Not classified as flammable or combustible. Organic solids may burn, but only after removal of water and exposure to intense heat and flame.
Flash Point	None to boiling. [Pensky-Martens Closed Cup]
Flammable Limits (% by volume)	Not applicable.
Extinguishing Media	Use water spray, dry chemical, or carbon dioxide.
Fire Fighting Instructions	Use self contained breathing apparatus and protection for skin.
Combustion Products	Irritating fumes and toxic gases.
Special Hazards	Water runoff can cause environmental damage. Dike and collect water used to fight fire.

Section 6. Accidental Release Measures

Spill and Leak Procedures

- Stop leak if you can do so without risk.
- Use PPE appropriate to spill size and risk of exposure.
- Confine spillage and absorb on sand, sawdust, or other available solids.
- Uncontaminated spilled material may be reused.
- Retain all contaminated water for removal and treatment. DO NOT flush to sewer.

Section 7. Handling and Storage

Handling

- Avoid eye contact. Avoid repeated or prolonged skin contact. Use proper protective equipment. (see *Section 8*)
- Avoid breathing mist or vapor. Use only in a well ventilated area.
- Unvented containers may develop pressure. Open with caution.
- Wash thoroughly after handling.
- Eyewash stations and safety showers should be easily accessible to areas where product is used.

Storage

- Do not store portable containers in direct sunlight.
- Keep containers closed when not in use.
- For maximum storage life, store at temperatures below 68°F (20°C).
- Protect from freezing.
- Store away from incompatible materials. (see *Section 10*)

Section 8. Exposure Controls / Personal Protection

Personal Protective Equipment (PPE)

Eyes and Face: Face shield with safety glasses or chemical safety goggles.

Skin: Rubber or neoprene gloves.

Respiratory: None required under normal conditions of use. However, if feasible engineering controls do not prevent overexposure, a full-face respirator with cartridges approved by NIOSH/MSHA for formaldehyde and dusts/mists may be used only when exposure levels are known to be within the unit's capability.
Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or in any situation where air purifying respirators may not provide adequate protection.
Observe the OSHA respirator regulations cited in 29 CFR 1910.134.

Engineering Controls

Use ventilation as necessary to keep exposure to airborne contaminants below the exposure limits.

Section 9. Physical and Chemical Properties

Physical appearance	Dark red to brown liquid
Odor	slight phenolic
pH (as is)	approximately 10.6
Boiling Point	approximately 212°F (100°C)
Melting Point	not applicable
Specific Gravity (25°C)	approximately 1.26
Vapor Pressure (mm Hg)	not available
Vapor Density	not available
% Volatile (w/w)	approximately 40%

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Solubility in Water	soluble

Section 10. Stability and Reactivity Data

Chemical Stability	This product is stable under the recommended storage conditions.
Conditions to Avoid	Avoid storage in unagitated bulk tanks above the recommended storage temperature. (see *Section 7*)
Incompatibility with Other Materials	Avoid contact or contamination with strong oxidizers, acids.
Hazardous Decomposition Products	None known.
Hazardous Polymerization	Hazardous polymerization will not occur.
Special Remarks	Elevated storage temperatures will shorten product storage life. Product may darken with time.

Section 11. Toxicological Information

Eye	This product is a moderate to severe eye irritant when tested as described in 29 CFR 1910.1200, Appendix A (OSHA Hazard Communication Standard).
Dermal	This product is not a primary skin irritant and is not dermally toxic when tested as described in 29 CFR 1910.1200, Appendix A (OSHA HCS).
Inhalation	This product is not toxic by inhalation when tested as described in 29 CFR 1910.1200, Appendix A (OSHA HCS).
Oral	This product is not orally toxic when tested as described in 29 CFR 1910.1200, Appendix A (OSHA HCS).
Subchronic Effects	Exposure to formaldehyde may cause temporary irritation to the nose and throat and may lead to respiratory disorders. However, in a thorough review of sensory/respiratory irritation studies of formaldehyde from the standpoint of occupational exposure, an expert panel has observed that exposure to concentrations of 0.3 ppm or lower failed to produce irritation. Individuals, in general, do not report irritation until concentrations reach 0.5 - 1 ppm. Respiratory disorders studies have concluded the threshold for long-term exposures causing chronic pulmonary effects is between 0.4 and 3 ppm and chronic obstructive pulmonary disease is 2 ppm. Additionally, persons with asthma responded no differently than healthy individuals at concentrations as high as 3 ppm. Pre-existing respiratory disorders may be aggravated by exposure.
Chronic Effects	
Carcinogenicity	The International Agency for Research on Cancer (IARC) classifies formaldehyde as a carcinogen. This classification is based on the increased occurrence of a rare cancer of the nasopharyngeal cavity. IARC determined that there was insufficient evidence of other cancers including cancer of the oral cavity, oro- and hypopharynx, larynx, lung, sinonasal cavity, pancreas, brain and leukemia. The National Toxicology Program (NTP) includes formaldehyde in its Annual Report on Carcinogens. OSHA regulates formaldehyde as a potential carcinogen for exposures at or exceeding 0.5 ppm.
Target Organs	See *Section 3.*

Section 12. Ecological Information

Ecotoxicity This product is biodegradable under aerobic and anaerobic conditions.

Section 13. Disposal Considerations

Waste Disposal Dispose of absorbed material in accordance with all federal, state, and local regulations. Dispose of contaminated water in a contained waste treatment system.

RCRA The requirements of the federal hazardous waste regulations do not apply unless the waste fails to pass any of EPA's four tests for determining hazardous wastes. **Note:** If this product is altered, it is the responsibility of the user to determine whether the material meets the criteria for hazardous waste at the time of disposal.

Section 14. Transportation Information

DOT Non-regulated

Shipping Description	Bulk Shipments	Non-bulk Shipments
Proper Shipping Name	Non-regulated	Non-regulated
Hazard Class	Not applicable.	Not applicable.
Identification Number	Not applicable.	Not applicable.
Packing Group	Not applicable.	Not applicable.
Reportable Quantities	Not applicable.	Not applicable.
Placards / Labels	**Placards:** Not applicable.	**Labels:** Not applicable.
Special Provisions for Transport	Not applicable	Not applicable.

Section 15. Regulatory Information

Federal Regulations ***The following regulations may have reporting requirements for the components listed. See "Key to Abbreviations and Acronyms" under Section 16 for definitions.***

CERCLA / SARA Emergency Reporting A spill or release of this material may trigger the emergency release reporting requirements under CERCLA (40 CFR Part 300) and/or SARA Title III (40 CFR Part 355). State or local reporting requirements may differ from federal requirements. Consult counsel for further guidance on your responsibilities under these laws.

Formaldehyde, Phenol, Sodium hydroxide

SARA Title III Section 313 Supplier Notification This product is known to contain the following chemicals which are listed in 40 CFR 372.65 as toxic chemicals requiring notification. This information must be included in all MSDS's that are copied and distributed for this product.

Component	CAS #	% by Weight
Not applicable.	**---**	**---**

CWA Section 307 The following chemicals are listed under Section 307 as toxic pollutants not eligible for waiver from best available technology economically achievable (BAT) effluent limitations.

Phenol

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CWA Section 311	The following chemicals are listed under Section 311 as hazardous substances requiring the submission of a National Pollutant Discharge Elimination System (NPDES) permit application to EPA. **Formaldehyde, Phenol, Sodium hydroxide**
TSCA	All components of this product are listed on the Toxic Substances Control Act Inventory or are excluded from listing requirements.
Other Regulations	See the OSHA Formaldehyde Standard 29 CFR 1910.1048 for worker training, workplace monitoring, and medical surveillance requirements. California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product contains the following substance(s) known to the State of California to cause cancer: **Formaldehyde** Canada: All components of this product are listed on the Canadian Domestic Substances List (DSL) or otherwise comply with CEPA new substance notification requirements.

Section 16. Other Information

FDA Status	Not applicable.
Other Special Considerations	**CAUTION:** Empty containers may contain product residue. Continue to observe recommended safety precautions when handling empty containers.
Supersedes Date	All Previous
Section(s) Changed Since Last Revision	11. Toxicological Information
Key to Abbreviations and Acronyms	ACGIH - American Conference of Governmental Industrial Hygienists ANSI - American National Standards Institute CEIL - Ceiling value CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act CFR - Code of Federal Regulations CWA - Clean Water Act DOT - Department of Transportation FDA - Food and Drug Administration HCS - Hazard Communication Standard HMIS - Hazardous Materials Information System IARC - International Agency for Research on Cancer LC_{50} - The concentration of a material expected to kill 50% of an animal test group. LC_{LO} - Lowest lethal concentration of a substance LD_{50} - The dose of a material expected to kill 50% of an animal test group. LD_{LO} - Lowest lethal dose of a material MSHA - Mine Safety and Health Administration N.O.S. - Not Otherwise Specified NFPA - National Fire Protection Association NIOSH - National Institute for Occupational Safety and Health NTP - National Toxicology Program OSHA - Occupational Safety and Health Administration PEL - Permissible Exposure Limit (OSHA) RCRA - Resource Conservation and Recovery Act RQ - Reportable Quantity SARA - Superfund Amendments and Reauthorization Act STEL - Short Term Exposure Limit TLV - Threshold Limit Value (recommended by ACGIH) TSCA - Toxic Substances Control Act TWA - Time Weighted Average

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IMPORTANT:

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