



Georgia-Pacific
Chemicals

Material Safety Data Sheet

GP® 5018 RESI-SET® Phenolic Impregnating Resin

1. Product and company identification

Product name : GP® 5018 RESI-SET® Phenolic Impregnating Resin
Synonym : RPMS 5018
Manufacturer : Georgia-Pacific Chemicals LLC
 133 Peachtree Street, NE
 Atlanta, GA 30303
 (770) 593-6874 (Non-Emergency)
In case of emergency : Call CHEMTREC (CCN9376) at 1-800-424-9300 or +703-527-3887 (Int'l) 24hrs

2. Hazards identification

Emergency overview

Physical state : Liquid
Color : Amber to brown
Odor : phenolic
Signal word : WARNING!
Hazard statements : CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER. CAUSES SEVERE EYE IRRITATION.
Precautionary measures : Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Do not breathe vapor or mist. Do not eat, drink or smoke when using this product. Avoid contact with eyes. Use personal protective equipment as required. Wash thoroughly after handling.
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential acute health effects

Eyes : Severely irritating to eyes. Risk of serious damage to eyes.
Eyes : Adverse symptoms may include the following: pain or irritation watering redness
Medical conditions aggravated by over-exposure : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product. Repeated or prolonged exposure to formaldehyde may cause skin sensitization, dermatitis or other allergic reactions. The degree of sensitivity varies with individuals.

Potential chronic health effects

Chronic effects : Contains material that may cause target organ damage, based on animal data.
Carcinogenicity : Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.
Target organs : Contains material which may cause damage to the following organs: kidneys, lungs, liver, spleen, upper respiratory tract, skin, eyes, central nervous system (CNS), pancreas.

See toxicological information (Section 11)

3. Composition/Information on ingredients**United States**

Name	CAS number	%
1,2-Ethanediol	107-21-1	<17
Phenol	108-95-2	<10
Formaldehyde	50-00-0	<0.8

Canada

Name	CAS number	%
1,2-Ethanediol	107-21-1	<17
Phenol	108-95-2	<10
Formaldehyde	50-00-0	<0.8

Mexico

Name	CAS number	UN number	%	IDLH	Classification			
					H	F	R	Special
1,2-Ethanediol	107-21-1	Not available.	<17	-	2	1	0	-
Phenol	108-95-2	UN2810	<10	250 ppm	2	2	0	-

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

- Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

- Flammability** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Flash point** : Closed cup: >93.333°C (>200°F) [Pensky-Martens]
- Extinguishing media**
- Suitable** : In case of fire, use water, dry chemical powder or carbon dioxide.
- Not suitable** : None known.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Special remarks on fire hazards** : Nonflammable, but may burn on prolonged exposure to flame or high temperature.

6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Do not store above the following temperature: 10°C (50°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection**United States**

8. Exposure controls/personal protection

Ingredient	Exposure limits
1,2-Ethanediol	ACGIH TLV (United States, 2/2010). C: 100 mg/m ³ Form: Aerosol
Phenol	ACGIH TLV (United States, 2/2010). Absorbed through skin. TWA: 5 ppm 8 hour(s). TWA: 19 mg/m ³ 8 hour(s). OSHA PEL (United States, 11/2006). Absorbed through skin. TWA: 5 ppm 8 hour(s). TWA: 19 mg/m ³ 8 hour(s).
Formaldehyde	ACGIH TLV (United States, 2/2010). Skin sensitizer. C: 0.3 ppm C: 0.37 mg/m ³ OSHA PEL Z2 (United States, 11/2006). TWA: 0.75 ppm 8 hour(s). STEL: 2 ppm 15 minute(s). OSHA PEL (United States, 11/2006). TWA: 0.75 ppm 8 hour(s). STEL: 2 ppm 15 minute(s).

Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	Notations
1,2-Ethanediol	US ACGIH 2/2010	-	-	-	-	-	-	-	100	-	[a]
	AB 4/2009	-	-	-	-	-	-	-	100	-	[3]
	BC 10/2009	-	-	-	-	-	-	-	100	-	[a]
		-	10	-	-	20	-	-	-	-	[b]
		-	-	-	-	-	-	50	-	-	[c]
Phenol	ON 7/2010	-	-	-	-	-	-	-	100	-	[d]
	QC 6/2008	-	-	-	50	127	-	-	-	-	[e]
	US ACGIH 2/2010	5	19	-	-	-	-	-	-	-	[1]
	AB 4/2009	5	19	-	-	-	-	-	-	-	[1]
	BC 10/2009	5	-	-	-	-	-	-	-	-	[1]
Formaldehyde	ON 7/2010	5	19	-	-	-	-	-	-	-	[1]
	QC 6/2008	5	19	-	-	-	-	-	-	-	[1]
	US ACGIH 2/2010	-	-	-	-	-	-	0.3	0.37	-	[3]
	AB 4/2009	0.75	0.9	-	-	-	-	1	1.3	-	
	BC 10/2009	0.3	-	-	-	-	-	1	-	-	[3]
	ON 7/2010	-	-	-	1	-	-	1.5	-	-	
	QC 6/2008	-	-	-	2	3	-	-	-	-	

[1]Absorbed through skin. [3]Skin sensitization

Form: [a]Aerosol [b]Particulate [c]Vapour [d]aerosol [e]vapour and mist

Mexico**Occupational exposure limits**

Ingredient	Exposure limits
1,2-Ethanediol	NOM-010-STPS (Mexico, 9/2000). LMPE-Pico: 100 mg/m ³
Phenol	NOM-010-STPS (Mexico, 9/2000). Absorbed through skin. LMPE-PPT: 5 ppm 8 hour(s). LMPE-PPT: 19 mg/m ³ 8 hour(s). LMPE-CT: 38 mg/m ³ 15 minute(s). LMPE-CT: 10 ppm 15 minute(s).

Consult local authorities for additional exposure information.

Recommended monitoring procedures : OSHA regulates formaldehyde exposures at or exceeding 0.5 ppm as a potential cancer hazard and requires monitoring for exposures at or exceeding 0.5 ppm over an eight hour time-weighted average.

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

8. Exposure controls/personal protection

- Engineering measures** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: Face shield with safety glasses or chemical safety goggles.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Rubber gloves. Neoprene gloves.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Recommended: Chemical-resistant apron.
- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

- Physical state** : Liquid
- Flash point** : Closed cup: >93.333°C (>200°F) [Pensky-Martens]
- Color** : Amber to brown
- Odor** : phenolic
- pH** : 7
- Boiling/condensation point** : >93.333°C (>200°F)
- Relative density** : 1.23
- Volatility** : 26% (w/w)
- Solubility** : Very slightly soluble in the following materials: cold water and hot water.

10. Stability and reactivity

- Chemical stability** : Stable under recommended storage and handling conditions (see section 7).
- Conditions to avoid** : Unagitated bulk storage above recommended storage temperature. (see Section 7)
- Incompatible materials** : Avoid contact or contamination with strong oxidizer, acids, or modified phenolics (e.g. resorcinols, cresols) and isocyanates.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Possibility of hazardous reactions** : Unagitated bulk material may slowly exotherm when stored at temperatures above 80F(26.7C). These conditions may result in hazardous exothermic polymerization at temperatures above 104F(40C) or if mixed with incompatible materials.

11. Toxicological information**Acute toxicity**

Conclusion/Summary : This product is not expected to be toxic.

Product/ingredient name	Result	Species	Dose	Exposure
1,2-Ethanediol	LD50 Oral	Rat	4700 mg/kg	-
	LC50 Inhalation Vapor	Rat	316 mg/m ³	4 hours
	LD50 Dermal	Rabbit	630 mg/kg	-
Phenol	LD50 Dermal	Rat	669 mg/kg	-
	LD50 Oral	Rat	317 mg/kg	-
	LC50 Inhalation Gas.	Rat	250 ppm	4 hours
Formaldehyde	LD50 Dermal	Rabbit	270 mg/kg	-
	LD50 Oral	Rat	100 mg/kg	-

Chronic toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

Conclusion/Summary

- Eyes** : This product is expected to be an eye irritant.
- Skin** : This product is not expected to be a skin irritant.
- Respiratory** : Exposure to formaldehyde may cause temporary irritation to the nose and throat and may lead to respiratory disorders. Pre-existing respiratory disorders may also be aggravated by exposure. Studies have reported that persons with asthma responded no differently than healthy individuals at concentrations as high as 3 ppm.

Product/ingredient name	Result	Species
1,2-Ethanediol	Eyes - Mild irritant	Rabbit
	Eyes - Moderate irritant	Rabbit
	Skin - Mild irritant	Rabbit
Phenol	Eyes - Mild irritant	Rabbit
	Eyes - Severe irritant	Rabbit
	Skin - Severe irritant	Pig
Formaldehyde	Skin - Mild irritant	Rabbit
	Skin - Severe irritant	Rabbit
	Eyes - Mild irritant	Human
	Eyes - Severe irritant	Rabbit
	Skin - Mild irritant	Human
	Skin - Moderate irritant	Rabbit
	Skin - Severe irritant	Rabbit

Sensitizer

Conclusion/Summary : Repeated or prolonged exposure to formaldehyde may cause skin sensitization, dermatitis or other allergic reactions. The degree of sensitivity varies with individuals.

Carcinogenicity

Conclusion/Summary : The International Agency for Research on Cancer (IARC) and The National Toxicology Program (NTP) classify formaldehyde as a carcinogen due to cancers of the upper respiratory system and leukemia. OSHA regulates formaldehyde as a potential carcinogen for exposures at or exceeding 0.5 ppm.

Classification

Product/ingredient name	ACGIH	IARC	NTP	OSHA
1,2-Ethanediol	A4	-	-	-
Phenol	A4	3	-	-
Formaldehyde	A2	1	Proven.	+

12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
1,2-Ethanediol	Acute LC50 >100000 ug/L Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 6900000 ug/L Fresh water	Daphnia - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 8050000 ug/L Fresh water	Fish - Pimephales promelas - <=7 days	96 hours
	Chronic NOEC 11610000 ug/L Fresh water	Daphnia - Ceriodaphnia dubia - <=24 hours	48 hours
Phenol	Chronic NOEC 6090000 ug/L Fresh water	Fish - Pimephales promelas - <=7 days	96 hours
	Acute LC50 800 ug/L Marine water	Crustaceans - Archaeomysis kokuboi - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 3000 ug/L Fresh water	Daphnia - Ceriodaphnia dubia - <24 hours	48 hours
	Acute LC50 1.75 ug/L Fresh water	Fish - Cyprinus carpio - LARVAE - 8 mm	96 hours
Formaldehyde	Chronic NOEC 2200 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	48 hours
	Acute EC50 5800 ug/L Fresh water	Daphnia - Daphnia pulex - Neonate - <24 hours	48 hours
	Acute LC50 330000 to 1000000 ug/L Marine water	Crustaceans - Crangon crangon - LARVAE	48 hours
	Acute LC50 1.41 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours

Conclusion/Summary : Not available.

Persistence/degradability

Conclusion/Summary : Not available.


13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.



Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Reportable quantity	Placard/Label	Additional information
DOT Classification BULK	UN 3082	Environmentally hazardous substances, liquid, n.o.s.	9	III	RQ (Ethylene glycol, Phenol, Formaldehyde)		-
DOT Classification NON-BULK	Not regulated.	-	-	-	-	-	-

14. Transport information

TDG Classification	UN 3082	Environmentally hazardous substance, liquid, n.o.s	9	III	RQ (Ethylene glycol, Phenol, Formaldehyde)		-
Mexico Classification	UN 3082	Environmentally hazardous substance, liquid, n.o.s	9	III	RQ (Ethylene glycol, Phenol, Formaldehyde)		-

PG* : Packing group

15. Regulatory information**United States**

HCS Classification : Irritating material
Carcinogen
Target organ effects

United States inventory (TSCA 8b) : All components are listed or exempted.

U.S. Federal regulations : **SARA 302/304/311/312 extremely hazardous substances:** Phenol
SARA 302/304 emergency planning and notification: Phenol
SARA 302/304/311/312 hazardous chemicals: 1,2-Ethanediol; Phenol
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: 1,2-Ethanediol: Immediate (acute) health hazard, Delayed (chronic) health hazard; Phenol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: Phenol
Clean Water Act (CWA) 311: Phenol; Formaldehyde

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	1,2-Ethanediol	107-21-1	<17
	Phenol	108-95-2	<10
	Formaldehyde	50-00-0	<0.8
Supplier notification	1,2-Ethanediol	107-21-1	<17
	Phenol	108-95-2	<10
	Formaldehyde	50-00-0	<0.8

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: ETHYLENE GLYCOL; PHENOL

New York : The following components are listed: Ethylene glycol; Carbolic acid; Formaldehyde

New Jersey : The following components are listed: ETHYLENE GLYCOL; 1,2-ETHANEDIOL; PHENOL; CARBOLIC ACID; FORMALDEHYDE; FORMALIN

Pennsylvania : The following components are listed: 1,2-ETHANEDIOL; PHENOL; FORMALDEHYDE

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

15. Regulatory information

Ingredient name	Cancer	Reproductive
Formaldehyde	Yes.	No.
Methanol	No.	Yes.

Canada

WHMIS (Canada) : Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists

Canada inventory : All components are listed or exempted.
Canadian NPRI : The following components are listed: Ethylene glycol; Phenol
CEPA Toxic substances : None of the components are listed.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

16. Other information

Label requirements : CAUSES EYE IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

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

Health	2
Flammability	1
Physical hazards	1

The customer is responsible for determining the PPE code for this material.

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



Other special considerations : In compliance with good industrial hygiene practice, exposure to any chemical should be kept to a minimum.

Date of issue : 2/19/2013
New format

Date of previous issue : 10/20/2011 Change since last validation: Methanol added in Section 15 as California Prop 65 component.

Version : 2

Prepared by : Georgia-Pacific Chemicals LLC
Product Information Services Group

▣ Indicates information that has changed from previously issued version.

Notice to reader**IMPORTANT:**

This MSDS was prepared and is to be used only for this product in its present form. If this material is altered or used as a component in another material, the information on this MSDS may not be applicable. This document is generated for the purpose of distributing health, safety, and environmental data. It is not a specification sheet nor should any displayed data be construed as a specification. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product.

16. Other information

This information and the data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation, and verification. Buyer assumes all risk of use, storage, and handling of the product in compliance with applicable federal, state, and local laws and regulations. Georgia-Pacific Chemicals **MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, CONCERNING THE ACCURACY OR COMPLETENESS OF THE INFORMATION AND DATA HEREIN. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY EXCLUDED.** Georgia-Pacific Chemicals will not be liable for claims relating to any party's use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete, or otherwise misleading.

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