



Material Safety Data Sheet

FOR INDUSTRIAL USE ONLY

Momentive 5025A

Revision Date 11-JAN-2012

1. Product and company identification

Product name Momentive 5025A
MSDS Number 300000019108
Product Type Resin hardener
Product use Wood Adhesives, Composites, Laminates or Related Board Products

Manufacturer, Importer, Supplier Momentive Specialty Chemicals Inc.
180 East Broad Street
Columbus OH 43215

4information@momentive.com

Print date 12-JAN-2012

Telephone **For Emergency Medical Assistance**
Call Health & Safety Information Services, 1-866-303-6949

For Emergency Transportation Information
CHEMTREC US Domestic (800) 424-9300
CHEMTREC International (703) 527-3887
CANUTEC CA Domestic (613) 996-6666

For additional health and safety or regulatory information, call 1 888 443 9466 .

2. Hazards identification

Form Slurry
Odor Acetic
OSHA/HCS status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency overview DANGER !
TOXIC IF INHALED OR SWALLOWED. CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS.

Potential acute health effects

Inhalation Corrosive to the respiratory system. Toxic if inhaled.
Ingestion Toxic if swallowed. May cause burns to mouth, throat and stomach.
Skin Corrosive to the skin. Causes burns.
Eyes Corrosive to eyes. Causes burns.

Potential chronic health effects

Chronic effects	Contains material that can cause target organ damage.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.
Target organs	Contains material which causes damage to the following organs: blood, kidneys, liver, spleen, thyroid, Review Section 2 and 11 for any additional assessments.

Over-exposure signs/symptoms

Inhalation	Adverse symptoms may include the following: respiratory tract irritation, coughing,
Ingestion	Adverse symptoms may include the following: stomach pains,
Skin	Adverse symptoms may include the following: pain or irritation, redness, blistering may occur
Eyes	Adverse symptoms may include the following: pain, 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.

See section 11 for more detailed information on health effects and symptoms.

3. Composition/Information on ingredients

Ingredient name	CAS number	WT %
Kaolinite (H4Al2Si2O9)	1318-74-7	10.0 - 30.0
Formic Acid	64-18-6	10.0 - 30.0
Resorcinol	108-46-3	10.0 - 30.0

** Any applicable Canadian trade secret numbers will be listed in Section 15.

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. Chemical burns must be treated promptly by a physician. Get medical attention immediately.
Skin contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
Inhalation	Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial

respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

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 aid personnel

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.

See section 11 for more detailed information on health effects and symptoms.

5. Fire-fighting measures

Flammability of the product

In a fire or if heated, a pressure increase will occur and the container may burst.

Extinguishing media**Suitable**

Use an extinguishing agent suitable for the surrounding fire.

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.

Hazardous combustion products

Decomposition products may include the following materials: carbon oxides,

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.

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).

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. Wash spillages into an effluent treatment plant or proceed as follows. 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). The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. 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.

Small spill

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage

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. Separate from alkalis. 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

Ingredient name

Kaolinite (H₄Al₂Si₂O₉)
Formic Acid

Occupational exposure limits**ACGIH TLV Time Weighted Average (TWA)**

9.4 mg/m³ 5 ppm

ACGIH TLV Short Term Exposure Limit (STEL)

19 mg/m³ 10 ppm

OSHA PEL Time Weighted Average (TWA)

9 mg/m³ 5 ppm

Resorcinol**ACGIH TLV Time Weighted Average (TWA)**

45 mg/m³ 10 ppm

ACGIH TLV Short Term Exposure Limit (STEL)

90 mg/m³ 20 ppm

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures	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.
Engineering measures	Use only with adequate ventilation. 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.
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.
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.
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.
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.
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

Information on basic physical and chemical properties

Appearance	
Physical state	: Slurry
Color	: Tan.
Odor	: Acetic
Odor threshold	: Not available
pH	: Approx. 1.0
Freezing Point	: Approx. -0 °C (32 °F)
Boiling point	: Approx. 95 °C (203 °F)

Flash point	:	Greater than 100 °C (212 °F)
Evaporation rate	:	Not available
Flammable limits		
Upper:	:	Not available
Lower:	:	Not available
Vapor pressure	:	Not available
Vapor density	:	Not available
Relative density	:	1.100 - 1.300
Solubility	:	Soluble
Partition coefficient:	:	Not available
n-octanol/water		
Auto-ignition temperature	:	Not applicable.
Decomposition temperature	:	Not available
Viscosity	:	Kinematic-Not available Dynamic- 2,500 - 5,000 cPs Brookfield
Typical % solids	:	Not available

Other information

Not applicable.

10. Stability and reactivity

Reactivity	Stable under normal conditions.
Stability	The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	Strong oxidizer,
Materials to avoid	Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Reactive or incompatible with the following materials: alkalis,
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information**Acute toxicity****Ingredient name**

Formic Acid	LC50 Inhalation	Rat	15 mg/l/0.25 h
Resorcinol	LD50 Oral	Rat	301 mg/kg
	LD50 Oral	Mouse	200 mg/kg
	LD50 Dermal	Rabbit	3,360 mg/kg

Conclusion/Summary

Resorcinol: Signs of acute poisoning in rats include central nervous system stimulation, tremors and convulsions followed by depression and death, or complete recovery within 8-24 hours. Animal studies have further indicated that high acute doses have caused reversible damage to the thyroid as well as damage to the blood, spleen, liver, kidney and lungs. Since it is rapidly absorbed and rapidly eliminated from the body, there are no identified chronic or cumulative adverse effects.

Other Toxicological Information**Carcinogenicity****Classification****Ingredient name**

Kaolinite (H4Al2Si2O9)	ACGIH	Not classified
	IARC	Not classified
	NTP	Not listed
	OSHA	Not classified
Formic Acid	ACGIH	Not classified
	IARC	Not classified
	NTP	Not listed
	OSHA	Not classified
Resorcinol	ACGIH	Not classifiable as to its carcinogenicity to humans.
	IARC	IARC Group 3, not classifiable as to carcinogenicity to humans
	NTP	Not listed
	OSHA	Not classified

12. Ecological information

Environmental effects
No known significant effects or critical hazards.

Aquatic ecotoxicity

Ingredient name

Resorcinol	Fresh water	Acute LC50 > 100 mg/l/96 h	Rainbow trout, donaldson trout
	Fresh water	Acute LC50 40 mg/l/96 h	Fathead minnow

Other adverse effects
No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal The generation of waste should be avoided or minimized wherever possible. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

The data provided in this section is for information only and may not be specific to your package size or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

International transport regulations

Regulatory information	UN/NA number	Proper shipping name	Classes/*PG	Reportable Quantity (RQ)
CFR	3412	FORMIC ACID	Class 8 II	Resorcinol, Formic Acid
TDG	1779	FORMIC ACID	Class 8 II	
IMO/MDG	3412	FORMIC ACID	Class 8 II	Formic Acid, Resorcinol
IATA (Cargo)	1779	FORMIC ACID	Class 8 II	Formic Acid,

Resorcinol

*PG : Packing group

15. Regulatory information

US regulations

HCS Classification Toxic material, Corrosive material, Target organ effects

U.S. Federal regulations

SARA 311/312 Classification Immediate (acute) health hazard, Delayed (chronic) health hazard

SARA 313 - Supplier Notification

This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and Subpart C-Supplier Notification Requirement of 40 CFR Part 372.

Formic Acid - 64-18-6 (22.79%),

SARA 302 Extremely Hazardous Substances None required.

State regulations

Massachusetts RTK Substances The following components are listed: Formic Acid, Resorcinol,

New Jersey RTK Hazardous Substances The following components are listed: Resorcinol, Formic Acid, Kaolinite (H4Al2Si2O9),

Pennsylvania RTK Hazardous Substances The following components are listed: Resorcinol, Formic Acid, Kaolinite (H4Al2Si2O9),

California Prop. 65: None required.

Canada

WHMIS (Canada)

Class D-1A: Material causing immediate and serious toxic effects (Very toxic).

Class D-2A: Material causing other toxic effects (Very toxic).

Class D-2B: Material causing other toxic effects (Toxic).

Class E: Corrosive material

Canadian lists

Canadian NPRI: The following components are listed: Formic Acid,

International regulations

Chemical inventories

Australia inventory (AICS) All components are listed or exempted.

Canada inventory All components are listed or exempted.

Japan inventory Not determined.

China inventory (IECSC) Not determined.

Korea inventory All components are listed or exempted.

New Zealand Inventory (NZIoC) Not determined.

Philippines inventory (PICCS) Not determined.

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

16. Other information

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

Health : 3

Flammability: 1

Physical hazards : 0

Chronic : *

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR

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1910.1200, the preparer may choose to provide them. HMIS[®] ratings are to be used with a fully implemented HMIS[®] program. HMIS[®] is a registered mark of the National Paint & Coatings Association (NPCA). HMIS[®] materials may be purchased exclusively from J. J. Keller (800) 327-6868. The customer is responsible for determining the PPE code for this material.

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