

MATERIAL SAFETY DATA SHEET

ISSUE DATE: 12-Jan-2009

WHMIS STATUS: Non-controlled

Hercules Canada Inc.
Paper Technologies and Ventures
942 Brant Street
Burlington, Ontario Canada L7R 3X8
(905) 632-7861 (BUSINESS)
(905) 848-8888 (24 HRS)

1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME	SOYAD® TS9200 SOY ADHESIVE
CHEMICAL/Common Name	soy flour
CAS NUMBER	68513-95-1

2 COMPOSITION / INFORMATION ON INGREDIENTS

As Hercules Canada Inc. interprets the Workplace Hazardous Materials Information System (WHMIS), this product should be not considered a controlled product; however, this MSDS contains valuable information important to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users/handlers of this product.

3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING!

Static charges generated by emptying package in or near flammable vapours may cause flash fire.
May form flammable dust-air mixtures.
Inhalation of dust may cause respiratory tract irritation.
May cause skin irritation by mechanical abrasion.
May cause eye irritation by mechanical abrasion.
Surfaces subject to spills may become slippery.

Refer to Section 5 for Hazardous Combustion Products, and Section 10 for Hazardous Decomposition/Hazardous Polymerization Products.

4 FIRST AID MEASURES

SKIN

Wash thoroughly with soap and water. Get medical attention if irritation develops or persists.

EYE

Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get medical attention if irritation persists.

INHALATION

Remove to fresh air. Get medical attention if nasal, throat or lung irritation develops.

INGESTION

Not an ingestion hazard under anticipated conditions of use. For accidental ingestion: Do NOT induce vomiting. Get immediate medical attention.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Water spray, dry chemical, foam, carbon dioxide or clean extinguishing agents may be used on fires involving this product.

FIRE FIGHTING PROCEDURES

Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear when fighting fires involving this product.

CONDITIONS TO AVOID

None known.

HAZARDOUS COMBUSTION PRODUCTS

None known.

6 ACCIDENTAL RELEASE MEASURES

Ventilate area. Avoid dust formation. Clean up spills immediately. If product is not contaminated, scoop into clean containers for use. If product is contaminated, scoop into containers, and dispose appropriately. In case of accidental spill or release, refer to Section 8, Personal Protective Equipment and General Hygiene Practices.

7 HANDLING AND STORAGE

GENERAL MEASURES

Ground all equipment.

Blanket vessel with inert gas when emptying bags where flammable vapours may be present.

Ground operator and pour material slowly into conductive, grounded chute.

For large bags (1000 lbs or greater) a ground cable MUST be attached to the bag ground connection.

Store in a cool, dry place: approximately 20° C (68° F).

Keep container closed when not in use.

MATERIALS OR CONDITIONS TO AVOID

Avoid conditions that generate dust; product may form flammable dust-air mixtures.

Avoid emptying package in or near flammable vapours; static charges may cause flash fire.

Keep away from heat, flame, sparks and other ignition sources.

Do not store in direct sunlight or expose to UV radiation.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

WORK PRACTICES AND ENGINEERING CONTROLS

Eyewash fountains and safety showers should be easily accessible.

Provide adequate ventilation.

If upper respiratory tract irritation occurs, use an approved dust/mist respirator to minimize exposure.

Keep floors clean and dry. Clean up spills immediately.

GENERAL HYGIENIC PRACTICES

Avoid contact with eyes, skin, and clothing.

Avoid breathing dust.

Handle in areas with adequate ventilation.

Avoid contamination of food, beverages, or smoking materials.

Wash thoroughly after handling, and before eating, drinking or smoking.

Remove contaminated clothing promptly and clean thoroughly before reuse.

RECOMMENDED EXPOSURE LIMITS

No exposure limit has been established. This product may irritate the upper respiratory tract if used under conditions that create dust or mist particulates.

PERSONAL PROTECTIVE EQUIPMENT

Safety glasses

Impervious gloves

Appropriate protective clothing

Wear approved dust/mist respirator if user operations create dust/mist that causes irritation.

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE

Eliminate ignition sources and prevent build-up of static electrical charges.

Completely isolate and thoroughly clean all equipment, piping, or vessels before beginning maintenance or repairs.

Keep area clean.

9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	powder
COLOR:	off-white to tan
Solubility In Water	20 %
Bulk Density	30.5 lbs/cu ft
Particle Size	95 % through 100 mesh

10 STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS

None known.

HAZARDOUS POLYMERIZATION

Not anticipated under normal or recommended handling and storage conditions.

GENERAL STABILITY CONSIDERATIONS

Stable under recommended handling and storage conditions.

INCOMPATIBLE MATERIALS

None known

11 TOXICOLOGICAL INFORMATION

CARCINOGENICITY INFORMATION

Not listed as a carcinogen by NTP. Not regulated as a carcinogen by OSHA. Not evaluated by IARC.

REPORTED HUMAN EFFECTS

Due to the physical nature of this material, may cause eye, skin and respiratory irritation.

REPORTED ANIMAL EFFECTS

No animal toxicity studies have been carried out with this product.

12 ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No ecological studies have been carried out on this product.

13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Landfilling in a permitted solid or hazardous waste facility is recommended. Handling, transportation, and disposal of material should be conducted in a manner to prevent a nuisance dust hazard. Fully containerize the material before handling, and protect from exposure to the outdoors. Ensure there are no restrictions on disposing of bulk or semi-bulk quantities of waste material. Disposal should be in accordance with all Federal, Provincial and local regulations.

14 TRANSPORT INFORMATION

TDG: Non-regulated

For information regarding transportation classification of this product, please contact Hercules Canada Inc. at (905) 279-3338.

15 REGULATORY INFORMATION

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

CEPA

All components of this product comply with substance notification requirements under CEPA.

CHEMICAL INVENTORIES

U.S. TSCA: The components of this product are included on the TSCA Inventory.

Canadian CEPA : Included on DSL Inventory.

WHMIS CLASSIFICATION

Non-controlled

PREPARED BY: Hercules Canada Inc., Regulatory Affairs, (905) 279-3338

16 OTHER INFORMATION

HMIS RATINGS:

Health	1	Slight Hazard
Flammability	1	Slight Hazard
Reactivity	0	Minimal Hazard

LIST OF ACRONYMS

ACGIH: American Conferences of Governmental Industrial Hygienists

AIHA WEEL: American Industrial Hygienists Association-Workplace Environmental Exposure Level

ANSI: American National Standards Institute

CASRN: Chemical Abstracts Service Registry Number

CEPA: Canadian Environmental Protection Act

CPR: Controlled Products Regulations

DSL: Domestic Substances List (Canadian)

HMIRC: Hazardous Materials Information Review Commission

HMIS: Hazardous Materials Identification System

IARC: International Agency for Research on Cancer

N/A: Not Applicable

N.D.: No Data

NDSL: Non-Domestic Substances List (Canadian)

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limit (OSHA)

STEL: Short-Term Exposure Limit

TDG: Transportation of Dangerous Goods

TLV: Threshold Limit Values (registered trademark of ACGIH)

TPQ: Threshold Planning Quantity

TSCA: Toxic Substance Control Act

TWA: Time Weighted Average

WHMIS: Workplace Hazardous Materials Information System

DISCLAIMER

The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the MSDS was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or provincial laws.

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1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME HERCULES® CA1920A RESIN
CHEMICAL/Common Name thermosetting resin
CAS NUMBER mixture

2 COMPOSITION / INFORMATION ON INGREDIENTS

As Hercules Canada Inc. interprets the Workplace Hazardous Materials Information System (WHMIS), this product should be not considered a controlled product; however, this MSDS contains valuable information important to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users/handlers of this product.

3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION!

May cause skin irritation.
May cause eye irritation.
Inhalation may cause respiratory tract irritation.

POTENTIAL HEALTH EFFECTS

Prolonged or repeated contact may cause skin sensitization in susceptible individuals.

Refer to Section 5 for Hazardous Combustion Products, and Section 10 for Hazardous Decomposition/Hazardous Polymerization Products.

4 FIRST AID MEASURES

SKIN

Wash thoroughly with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists. Thoroughly wash clothing before reuse.

EYE

Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get medical attention if irritation persists.

INHALATION

Remove to fresh air. Get medical attention if nasal, throat or lung irritation develops.

INGESTION

Not an ingestion hazard under anticipated conditions of use. For accidental ingestion: Do NOT induce vomiting. Get immediate medical attention.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Water spray, dry chemical, foam, carbon dioxide or clean extinguishing agents may be used on fires involving this product.

FIRE FIGHTING PROCEDURES

Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear when fighting fires involving this product.

CONDITIONS TO AVOID

None known.

HAZARDOUS COMBUSTION PRODUCTS

This material is not expected to support combustion. If heated to decomposition, the following substances may be formed: carbon monoxide , carbon dioxide , smoke , nitrogen oxides , ammonia , hydrogen chloride , hydrogen cyanide and hydrocarbons

6 ACCIDENTAL RELEASE MEASURES

Ventilate area. For small spills: Add absorbent, sweep up, and dispose appropriately. Keep out of streams and waterways. Clean surrounding area with soda ash. For large spills: Dike to contain and pump into drums for use or disposal. In case of accidental spill or release, refer to Section 8, Personal Protective Equipment and General Hygiene Practices.

7 HANDLING AND STORAGE

GENERAL MEASURES

Store between 5-30° C (41-86° F).
Keep container closed when not in use.

MATERIALS OR CONDITIONS TO AVOID

Avoid storing product near incompatible materials. See MSDS Section 10.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

WORK PRACTICES AND ENGINEERING CONTROLS

Eyewash fountains and safety showers should be easily accessible.
Provide adequate ventilation.
If upper respiratory tract irritation occurs, use an approved dust/mist respirator to minimize exposure.

GENERAL HYGIENIC PRACTICES

Avoid contact with eyes, skin, and clothing.
Avoid inhalation of vapour, mist or aerosol particulates.
Handle in areas with adequate ventilation.
Avoid contamination of food, beverages, or smoking materials.
Wash thoroughly after handling, and before eating, drinking or smoking.
Remove contaminated clothing promptly and clean thoroughly before reuse.

RECOMMENDED EXPOSURE LIMITS

No exposure limit has been established. This product may irritate the upper respiratory tract if used under conditions that create dust or mist particulates.

PERSONAL PROTECTIVE EQUIPMENT

Safety glasses
Impervious gloves
Appropriate protective clothing
Wear approved dust/mist respirator if user operations create dust/mist that causes irritation.

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE

Completely isolate and thoroughly clean all equipment, piping, or vessels before beginning maintenance or repairs.

9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	liquid
COLOR:	yellow - amber
ODOR:	slightly sweet
Boiling Point	similar to water
Specific Gravity	1.06 at 20° C (68° F)

PRODUCT NAME	HERCULES® CA1920A
MSDS NUMBER	999 1060 1399 VERSION 02

Vapour Pressure	similar to water
Evaporation Rate	similar to water
Vapour Density	similar to water
Viscosity	90 - 140 cps at 25° C (77° F)
pH Value	2.8 (typical)
Weight % Solids	20 (typical)

10 STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS

None known.

HAZARDOUS POLYMERIZATION

Not anticipated under normal or recommended handling and storage conditions.

GENERAL STABILITY CONSIDERATIONS

Stable under recommended handling and storage conditions.

INCOMPATIBLE MATERIALS

Incompatible with: acids and alkalis

11 TOXICOLOGICAL INFORMATION

CARCINOGENICITY INFORMATION

Not listed as a carcinogen by NTP. Not regulated as a carcinogen by OSHA. Not evaluated by IARC.

REPORTED HUMAN EFFECTS

No human toxicity studies have been carried out with this product. May cause skin, eye or respiratory irritation due to pH.

REPORTED ANIMAL EFFECTS

No animal toxicity studies have been carried out with this product. SIMILAR PRODUCT: Caused mild eye irritation in rabbits. Nonirritating to both intact and abraded rabbit skin after a four-hour contact. Nonsensitizing to guinea pigs.

12 ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Cationic polymers, in general, exhibit high toxicity to aquatic organisms when tested in purified laboratory water. However, when tested in water supplemented with organic acids at a level simulating natural water conditions, the results demonstrated a 100-fold decrease in toxicity.

AQUATIC TOXICITY

SIMILAR PRODUCT: Acute aquatic static LC50 (Fathead minnow): 9.8 mg/L (NOEC 6.5 mg/L); (Salmon parr): 12 mg/L (NOEC 5.3 mg/L); (Rainbow trout): 2.9 mg/L (NOEC 1.3 mg/L); (Goldorfe): 31 mg/L. Acute 48-hour static LC50 Daphnia pulex: 3.6 mg/L (NOEC >2.6 mg/L).

BIODEGRADABILITY

Based upon data from this or similar materials, this product cannot be regarded as readily biodegradable; however, it may be slowly biodegradable.

13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Neutralize waste material to adjust pH to levels appropriate for discharge, and flush material with water into an acclimated biological waste treatment system permitted to handle such waste. Landfilling in a permitted solid or hazardous waste facility is a suitable alternative after solidification to remove free liquids. Treatment and disposal should be in accordance with Federal, Provincial and local regulations.

14 TRANSPORT INFORMATION

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AIHA WEEL: American Industrial Hygienists Association-Workplace Environmental Exposure Level
ANSI: American National Standards Institute
CASRN: Chemical Abstracts Service Registry Number
CEPA: Canadian Environmental Protection Act
CPR: Controlled Products Regulations
DSL: Domestic Substances List (Canadian)
HMIRC: Hazardous Materials Information Review Commission
HMIS: Hazardous Materials Identification System
IARC: International Agency for Research on Cancer
N/A: Not Applicable
N.D.: No Data
NDSL: Non-Domestic Substances List (Canadian)
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit (OSHA)
STEL: Short-Term Exposure Limit
TDG: Transportation of Dangerous Goods
TLV: Threshold Limit Values (registered trademark of ACGIH)
TPQ: Threshold Planning Quantity
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