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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**GHS product identifier****Product Name** SpectraGarde Activator – Part B**Other means of identification****Synonyms** SpectraGarde Part B - ISO**Recommended use of the chemical and restrictions on use****Recommended Use** Activator for Curing Chemical Resistant Coating**Uses advised against** Consumer use**Supplier's details****Manufacturer Address**CCI Spectrum Inc.
4527 Sunbeam Road
Jacksonville, FL 32257
Telephone number: 904-419-4889**Emergency telephone number****Emergency Telephone Number** INFOTRAC 1-800-535-5053 (24 hrs)
1-352-323-3500 (International 24 hrs)**2. HAZARDS IDENTIFICATION****Classification**

This product is considered hazardous by the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

Acute Inhalation Toxicity - Dusts and Mists	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Respiratory Sensitization	Category 1
Skin Sensitization	Category 1
Carcinogenicity	Category 2
Specific Target Organ Systemic Toxicity (Single Exposure)	Category 3
Specific Target Organ Toxicity (Repeated Exposure)	Category 2

GHS Label elements, including precautionary statements**Emergency Overview****Signal Word****Danger****Hazard Statements**

- Harmful if inhaled
- Causes skin irritation
- Causes serious eye irritation
- May cause allergy or asthma symptoms or breathing difficulties if inhaled
- May cause an allergic skin reaction
- Suspected of causing cancer
- May cause respiratory irritation
- May cause damage to organs through prolonged or repeated exposure

**Appearance** Dark brown**Physical State** Liquid.**Odor** Musty**Precautionary Statements****Prevention**

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- Wash face, hands and any exposed skin thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- Contaminated work clothing should not be allowed out of the workplace.
- Wear protective gloves/protective clothing/eye protection/face protection.
- In case of inadequate ventilation wear respiratory protection.

General Advice

- If exposed or concerned: Get medical attention/advice
- Specific treatment (see supplemental instructions on the administration of antidotes on this label)

Eyes

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.

Skin

- IF ON SKIN: Wash with plenty of soap and water.
- Take off contaminated clothing and wash before reuse.
- If skin irritation or rash occurs: Get medical advice/attention.

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Storage

- Store locked up.
- Store in a well-ventilated place. Keep container tightly closed.

Disposal

- Dispose of contents/container to an approved waste disposal plant.

Hazard Not Otherwise Classified (HNOC)

Not applicable

Other information

0% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Synonyms** SpectraGarde Part B - ISO

Chemical Name	CAS-No	Weight %	Trade secret
Polymethylene polyphenylene isocyanate	9016-87-9	60-100	*
4,4-Methylenediphenyl diisocyanate	101-68-8	30-60	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**Description of necessary first-aid measures**

Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact	Wash skin with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Remove and wash contaminated clothing before re-use.
Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing if experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
Ingestion	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms/effects, acute and delayed**Most Important Symptoms/Effects** Asthma-like and/or skin allergy-like symptoms. Rashes. Irritation.**Indication of immediate medical attention and special treatment needed, if necessary****Notes to Physician** May cause sensitization by inhalation and skin contact.**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Water.**Specific Hazards Arising from the Chemical**

Closed container may forcibly rupture under extreme heat or when contents are contaminated with water. Use cold-water spray to cool fire-exposed containers to minimize the risk of rupture. Large fires can be extinguished with large volumes of water applied from a safe distance, since reaction between water and hot isocyanate can be vigorous.

Explosion Data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists.

Environmental Precautions

Environmental Precautions Prevent further leakage or spillage if safe to do so. See Section 12 for additional Ecological Information. Prevent entry into waterways, sewers, basements or confined areas.

Methods and materials for containment and cleaning up

Methods for Containment Dike far ahead of liquid spill for later disposal.

Methods for Cleaning Up Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Use personal protective equipment. Do not fill the container more than 2/3 full to allow for expansion, and do not tighten the lid on the container. Repeat application of absorbent material until all the liquid has been removed from the surface.

Collect material in open-head metal containers. Repeat applications of decontamination solution, with scrubbing, followed by absorbent material until decontaminated. Check for residual contamination. Swype test kits have been used for this purpose. Apply lid loosely and allow containers to vent for 72 hours to let carbon dioxide escape.

Neutralizing solutions:

- 1) Colorimetric Laboratories Inc. (CLI) decontamination solution
- 2) A mixture of 75% water, 20% non-ionic surfactant (e.g. Poly-tergent SL-62, Tergitol TMN-10) and 5% n-propanol.
- 3) A mixture of 80% water and 20% non-ionic surfactant.
- 4) A mixture of 90% water, 3-8% ammonium hydroxide or concentrated ammonia, and 2% liquid detergent.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist vapors/spray. Wash thoroughly after handling. Use only in ventilated areas. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/ protective clothing/ eye protection/ face protection. In case of insufficient ventilation, wear suitable respiratory equipment.

Conditions for safe storage, including any incompatibilities

Storage Store locked up. Store in a well-ventilated place. Keep cool.

Incompatible Products Water. Strong oxidizing agents. Strong bases. Amines. Alcohols. Copper alloys.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
4,4-Methylenediphenyl diisocyanate 101-68-8	TWA: 0.005 ppm	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m ³	IDLH: 75 mg/m ³ Ceiling: 0.020 ppm 10 min Ceiling: 0.2 mg/m ³ 10 min TWA: 0.005 ppm TWA: 0.05 mg/m ³

ACGIH TLV: American Conference of Governmental Industrial Hygienists – Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration – Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health

Appropriate engineering controls

Engineering Measures Showers
 Eyewash stations
 Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Tightly fitting safety goggles.

Skin and Body Protection Wear protective gloves/clothing. Gloves should be worn. Nitrile rubber gloves showed excellent resistance. Butyl rubber, isoprene and PVC are also effective.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Do not eat, drink or smoke when using this product. Provide regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Appearance	Dark brown
Odor	Musty	Odor Threshold	No information available.

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
pH	No data available	None known
Melting Point/Range	No data available	None known
Boiling Point/Boiling Range	>300 °C	None known
Flash Point	230 °C	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
upper flammability limit	No data available	
lower flammability limit	No data available	
Vapor Pressure	No data available	None known
Vapor Density	No data available	None known
Specific Gravity		None known
Water Solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition Temperature	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	200 mPa @ 20°C	None known

Flammable Properties Not flammable

Explosive Properties No data available

Oxidizing Properties No data available

Other information

VOC Content (%) No data available

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization

Contact with moisture, other materials that react with isocyanates, or temperatures above 350°F (177°C), may cause polymerization.

Conditions to avoid

Protect from moisture. High temperatures.

Incompatible materials

Water. Strong oxidizing agents. Strong bases. Amines. Alcohols. Copper alloys.

Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NO_x). Isocyanates. Isocyanic acid.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information****Inhalation**

May be harmful if inhaled. May cause irritation of respiratory tract. May cause respiratory sensitization.

Eye Contact

Causes serious eye irritation.

Skin Contact

Causes skin irritation. May cause sensitization by skin contact.

Ingestion

Ingestion may cause irritation to mucous membranes.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Polymethylene polyphenylene isocyanate	= 49 g/kg (Rat)	> 9400 mg/kg (Rabbit)	=490 mg/m ³ (Rat) 4 hr
4,4-Methylenediphenyl diisocyanate	= 9200 mg/kg (Rat)	-	-

Symptoms related to the physical, chemical and toxicological characteristics**Symptoms**

Difficulty in breathing. Coughing and/or wheezing. Allergic skin reactions or irritation.

Delayed and immediate effects and also chronic effects from short and long term exposure**Sensitization**

May cause sensitization by inhalation and skin contact

Mutagenic Effects No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Polymethylene polyphenylene isocyanate		Group 3		
4,4-Methylenediphenyl diisocyanate		Group 3	-	-

IARC: (International Agency for Research on Cancer)

Group 3 – Not Classifiable as to its Carcinogenicity to Humans

Reproductive Toxicity No information available.
STOT - single exposure May cause respiratory irritation.
STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.
Aspiration Hazard No information available.

Numerical measures of toxicity - Product

Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document:

LD50 Oral 7513 mg/kg; Acute toxicity estimate

Inhalation Soluble in Ethanol and 2-Propanol

dust/mist 1.2 mg/L; Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not Classified

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
4,4-Methylenediphenyl diisocyanate 101-68-8	NOEC: 1640 mg/l Green algae	LC50: >1000 mg/l (Danio rerio, zebra fish 96 h)		EC50: >1000 mg.l (water flea, Daphnia magna, 24h)

Persistence and Degradability Not readily biodegradable.

Bioaccumulation Does not bioaccumulate.

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging Do not re-use empty containers.

14. TRANSPORT INFORMATION

Note: This product contains hazardous materials with reportable quantities as listed in Section 15. Based on net weight of product, the shipping description and label may need to be marked with "RQ".

DOT Not regulated

TDG Not regulated

MEX Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
 DSL Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Polymethylene polyphenylene isocyanate	9016-87-9	100	1.0
4,4-Methylenediphenyl diisocyanate	101-68-8	60	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
 Chronic Health Hazard Yes
 Fire Hazard No
 Sudden Release of Pressure Hazard No
 Reactive Hazard No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, contains one or more substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
4,4-Methylenediphenyl diisocyanate	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Polymethylene polyphenylene isocyanate	X				
4,4-Methylenediphenyl diisocyanate	X	X	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA	Health Hazard	2	Flammability	1	Instability	1	Physical and Chemical Hazards	-
HMIS	Health Hazard	2*	Flammability	1	Physical Hazard	1	Personal Protection	X

*Indicates a chronic health hazard

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General Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet