Section 1 - Chemical Product and Company Information

IN CASE OF EMERGENCY:

CHEMTREC 1-800-424-9300

Product Name: 2142 GN Product Code: 2142 GN

Trade Name: Glyptal

Manufactured by:

GLYPTAL, INC. 305 Eastern Ave. Chelsea, MA 02150 Telephone (617) 884-6918

Product Use: Adhesives Not recommended for: Nonindustrial Coatings

Section 2 - Hazards Identification

NFPA Raings, risk phrases, and suggested WHMIS Hazard Categories:

GHS Ratings:

Flammable liq	uid 2	Flash point < 23°C and initial boiling point > 35°C (95°F)		
Skin corrosive	3	Reversible adverse effects in dermal tissue, Draize score: >= 1.5 < 2.3		
Eye corrosive	2A	Eye irritant: Subcategory 2A, Reversible in 21 days		
Reproductive		Human or animal evidence possibly with other information		
Organ toxin si		Transient target organ effects- Narcotic effects- Respiratory		
exposure		tract irritation		
GHS Hazards				
H225	Highly flammat	ble liquid and vapour		
H302	Harmful if swal	• •		
H316	Causes mild sk	kin irritation		
H319	Causes serious	s eye irritation		
H361	Suspected of d	Suspected of damaging fertility or the unborn child		
GHS Precautions				
P202	Do not handle	until all safety precautions have been read and understood		
P210		Keep away from heat/sparks/open flames/hot surfaces – No smoking		
P233	Keep container	Keep container tightly closed		
P240	Ground/bond c	container and receiving equipment		
P241	Use explosion-	proof electrical/ventilating/light//equipment		
P242	Use only non-s	sparking tools		
P243	Take precaution	Take precautionary measures against static discharge		
P261	Avoid breathing	Avoid breathing dust/fume/gas/mist/vapours/spray		
P264	Wash skin thor	Wash skin thoroughly after handling		
P271	Use only outdo	Use only outdoors or in a well-ventilated area		
P280	Wear protective	e gloves/protective clothing/eye protection/face protection		
P362	Take off contar	ninated clothing and wash before reuse		
P301+P312	IF SWALLOWE	ED: Call a POISON CENTER or doctor/physician if you feel unwell		
P303+P361+F	P353 IF ON SKIN (or Rinse skin with	r hair): Remove/Take off immediately all contaminated clothing.		
P304+P312	IF INHALED: C	Call a POISON CENTER or doctor/physician if you feel unwell		
P304+P340	IF INHALED: R for breathing	Remove victim to fresh air and keep at rest in a position comfortable		

IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
IF exposed or concerned: Get medical advice/attention
If skin irritation occurs: Get medical advice/attention
If eye irritation persists, get medical advice/attention
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction
Store in a well ventilated place. Keep container tightly closed
Store in a well ventilated place. Keep cool
Dispose of contents/container to an approved waste disposal plant

Signal Word: Danger



Section 3 - Composition/Information on Ingredients			
Chemical Name	CAS number	Weight Concentration %	
Acetone	67-64-1	70.00% - 80.00%	
Toluene	108-88-3	1.00% - 5.00%	
Nitrocellulose	9004-70-0	1.00% - 5.00%	

Section 4 - First Aid Measures

INHALATION - Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room, or physician as further medical treatment may be necessary. Administer oxygen if a qualified operator is available.

EYE CONTACT - In case of eye contact, flush the eyes with water for fifteen (15) minutes. If contact lenses are worn, quickly remove them, then flush the eyes with water. If irritation persists, contact a poison control center, emergency room, or physician as further medical treatment may be necessary.

SKIN CONTACT - In case of skin contact, remove contaminated clothing. Flush the skin with large amounts of water, then wash the skin with soap and water. If symptoms persist, contact a poison control center, emergency room, or physician as further medical treatment may be necessary.

INGESTION - If material is ingested, seek immediate medical attention. Do not induce vomiting. If vomiting occurs spontaneously, keep the head below the hips to prevent aspiration of liquid into the lungs. Contact a poison control center, emergency room, or physician as further medical treatment will be necessary.

Section 5 - Fire Fighting Measures

Flash Point: -20 C (-4 F) LEL: 1.00

UEL: 13.00

EXTINGUISHING MEDIA: Use carbon dioxide (CO2), "alcohol" foam, dry chemical

UNUSUAL FIRE OR EXPLOSION HAZARDS: The product vapor is heavier than air and may travel a considerable distance to a source of ignition and flashback. Closed containers may explode or burst when exposed to extreme heat. May produce hazardous decomposition products when exposed to extreme heat.

HAZARDOUS COMBUSTION PRODUCTS: See section 10 for a list of hazardous decomposition products for this mixture.

FIRE FIGHTING: Water spray may be ineefective. If water is used, fog nozzles are prefereable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat. If evacuation of personnel is necessary, evacuate to an upwind area. Decontaminate personnel and equipment with a water wash-down after fire and smoke exposure.

FIRE FIGHTING EQUIPMENT: Firemen and emergency responders: wear full turnout gear or Level A equipment, including positive-pressure, self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

SPILL AND LEAK PROCEDURES: Spill supervisor - Ensure cleanup personnel wear all appropriate Personal Protective Equipment (PPE), including respiratory protection. Remove all ignition sources. Keep nonessential personnel away from the contaminated area.

SMALL SPILLS: Ventilate the contaminated area. Using nonsparking tools, mix the appropriate sorbent into the spilled material. Use an absorbent like sawdust for aqueous, waterborne, and solvent-borne coatings.

Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes.

Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

LARGE SPILLS: Prevent this material from entering sewers and watercourses by diking or impounding the spilled material. Advise authorities if the product has entered or may enter, sewers, watercourses, or extensive land areas.

Ventilate the contaminated area. Using nonsparking tools, mix the appropriate sorbent into the spilled material. Use an absorbent like sawdust for aqueous, waterborne, and solvent-borne coatings.

Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes.

Label the waste container. Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

Section 7 - Handling and Storage

HANDLING PRECAUTIONS: Wear all appropriate Personal Protective Equipment (PPE). Wear respiratory protection or ensure adequate ventilation at all times as vapors can accumulate in confined or poorly ventilated areas. Use the product in a manner which minimizes splashes and/or the creation of dust. Keep containers closed when not in use. Do not handle or store material near heat, sparks, open flames, or other sources of ignition. Store at room temperatures, i.e., 50 to 85 F (10 to 30 C).

Store only in original containers.

Section 8 - Exposure Controls / Personal Protection					
Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits		
Acetone 67-64-1	PEL 1000 ppm - TWA	TLV 500 ppm - TWA STEL 750 ppm	Not Established		
Toluene 108-88-3	100 ppm - TWA (Z-1) 150 ppm - STEL (Z-1) 200 ppm TWA (Z-2)	TLV 20 ppm - TWA	Not Established		
Nitrocellulose 9004-70-0	Not Established	Not Established	Not Established		

ENGINEERING: Provide general dilution of local exhaust ventilation in volume and pattern to keep concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m3 (total dust), 3 mg/m3 (respirable fraction), OSHA PEL 15 mg/m3 (total dust), 5 mg/m3 (respirable fraction).

Ensure processing (curing) ovens are properly vented to prevent the introduction of processing fumes into the workplace. Use explosion-proof equipment and good manufacturing practice.

VENTILATION: Use only with adequate ventilation, i.e., ventilation in compliance with occupational exposure limits. Refer to OSHA standards 1910.94, 1910.107, 1910.108.

PERSONAL PROTECTIVE EQUIPMENT

EYES:

Wear splash goggles. If extra protection is required, wear a face shield over the splash goggles. Face shields are effective only if worn in addition to splash goggles.

PROTECTIVE GLOVES:

Wear chemical-resistant gloves (butyl rubber or neoprene). Protective gloves should be inspected frequently and discarded when they exhibit cuts, tears, pinholes, or signs of excessive wear. If necessary, wear a chemical-resistant, butyl-rubber apron and other protective clothing, as deemed appropriate, to avoid skin contact with material.

RESPIRATORY PROTECTION:

Respiratory protection may not be needed if the local exhaust is sufficient to maintain levels of hazardous ingredients below occupational exposure limits. Where ventilation is inadequate, use a NIOSH/MSHA-approved, air-purifying respirator equipped with the appropriate chemical cartridges or positive-pressure, air-supplied respirator. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used.

CONTAMINATED EQUIPMENT: Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

Section 9 - Physical and Chemical Properties

This mixture typically exhibits the following properties under normal circumstances:

Appearance Green Liquid

Physical State Liquid

Vapor Pressure 31.5 mm Hg @ 68 F

Boiling Range 56 to 111 °C

Lbs VOC/Gallon Solids 1.2

Odor Solvent odor

Vapor Density Heavier than air

Evaporation Rate Slower than ether

Specific Gravity (SG) 0.869

Lbs VOC/Gallon Less Water 0.60 and Exempt Solvent

Section 10 - Stability and Reactivity

Stability:

STABLE

Components of this mixture are incompatible with the following materials:

Strong oxidizing agents, acids, alkali/base/caustic solutions, and amines Strong oxidizing agents

Strong oxidizing agents, acids, alkali/base/caustic solutions, and reducing agents

This mixture is likely to exhibit the following combustion products:

Carbon Dioxide, Carbon Monoxide Oxides of nitrogen Hazardous polymerization will not occur.

Acetone

Section 11 - Toxicological Information

Component Toxicity

67-64-1

Oral LD50: 6 g/kg (Rat) Dermal LD50: 7 g/kg (Guinea Pig) Inhalation LC50: 50 g/m3 (Rat)

Toxicological information: The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Sections 3 and 15 for details.

Inhalatio	on	Skin Contact	Eye	e Contact	Ingestion	
Exposure to this material may affect the following organs:						
Blood	Eyes	Kidneys	Liver	Lungs	Central Nervous System	Skin

Effects of Overexposure

108-88-3	Toluene Signs of symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: metallic taste, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, temporary changes in mood and behavior, muscle weakness, loss of coordination, confusion, irregular heartbeat, coma, and death.
Eye Contact	May cause mild irritation. Symptoms include stinging, tearing, and redness.

Ingestion	Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.
Inhalation	Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits.
Skin Contact	May cause mild skin irritation. Symptoms may include redness and burning of skin. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.
67-64-1	Acetone Signs of symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: mouth and throat irritation (soreness, dry or scratchy feeling, cough), stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), and other central nervous system effects, high blood sugar, coma.
Eye Contact	May cause mild irritation. Symptoms include stinging, tearing, and redness.
Ingestion	Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.
Inhalation	Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits.
Skin Contact	May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms include redness, burning, drying and cracking of skin, and skin burns. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Carcinogenicity: The following chemicals comprise 0.1% or more of this mixture and are listed and/or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA (mandatory listing), or ACGIH (optional listing). See Section 15 for carcinogenicity assessment.

CAS Number None	Description	% Weight Carcinogen Rating N/A			
Section 12 - Ecological Information					

Component Ecotoxicity

12.1 Toxicity Toxicity to fish mg/l - 96 h

Toxicity to daphnia and LC50 - Daphnia magna (Water flea) - 8,800 mg/l - 48 h other aquatic invertebrates

Toxicity to algae Remarks: no data available

12.2 Persistence and degradabilityBiodegradability Result: 91 % - Readily biodegradable.(OECD Test Guideline 301B)

12.3 Bioaccumulative potential Does not bioaccumulate.

12.4 Mobility in soil no data available

12.5 Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects no data available

12.1 Toxicity Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 7.63 mg/l - 96 h NOEC - Pimephales promelas (fathead minnow) - 5.44 mg/l -7 d Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 8.00 mg/l -24 h other aquatic invertebrates Immobilization EC50 - Daphnia magna (Water flea) - 6 mg/l - 48 h EC50 - Chlorella vulgaris (Fresh water algae) -Toxicity to algae 245.00 mg/l - 24 h EC50 - Pseudokirchneriella subcapitata (green algae) - 10.00 mg/l - 24 h 12.2 Persistence and degradability Biodegradability Result: - Readily biodegradable 12.3 Bioaccumulative potential Bioaccumulation Leuciscus idus (Golden orfe) - 3 d - 0.05 mg/l Bioconcentration factor (BCF): 90 12.4 Mobility in soil No data available 12.5 Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted 12.6 Other adverse effects An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

Section 13 - Disposal Considerations

The provisions of Council Directive 91/689/EEC and subsequent Amendments and Decisions apply to wastes for the product as supplied.

Do not allow into drains or water courses.

Waste and emptied containers must be disposed of in accordance with: -Control of Pollution Act of 1974, -Special Waste Regulations 1996, -Duty of Care Regulations 1992.

Waste should be recycled or disposed of through a licensed waste management facility .

Section 14 - Transport Information

This material is classified for transport as follows:

Packing Group

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Section 15 - Regulatory Information

According to the Directive (1999/45/EC), relating ot the classification packaging and labelling of dangerous substances and preparations, the product is labelled as follows:

State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING!

This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin:

108-88-3 Toluene 1 to 5 %

Carcinogenicity:

IARC - No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH - No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potention carcinogen by ACGIH.

OSHA - No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potention carcinogen by OSHA.

NTP - No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Toluene 108-88-3 Acetone 67-64-1

Commonwealth of Massachusetts "Right to Know": This product contains the following toxic or hazardous substances which appear on the Massachusetts Substance List:

Toluene 1 to 5 % Acetone 70 to 80 %

New Jersey Worker and Community Right To Know Hazardous Substance List: The following substances appear on the New Jersey Right To Know Hazardous Substance List.

Toluene 1 to 5 % Acetone 70 to 80 %

Commonwealth of Pennsylvania Worker and Community Right-To-Know Act: This product contains the following chemicals which appear on the Pennsylvania Hazardous Substance List:

108-88-3 67-64-1

WHMIS Classification B2 Flammable Liquid - None

Country

Regulation

All Components Listed

Toxic Substances Control Act (TSCA): All chemicals except those listed below appear in the Toxic Substances Control Act Chemical Substance Inventory:

- None

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act, and Title 40 of the Code of Federal Regulations, part 372.

Section 16 - Other Information

Hazardous Material Information System (HMIS)

National Fire Protection Association (NFPA)



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Reviewer Revision

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