Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Date of issue: 02/18/2015 Revision date: 02/18/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Phosgene Sensing Tape

Product code : Not available.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Detection of phosgene.

1.3. Details of the supplier of the safety data sheet

Galvanic Applied Sciences 7000 Fisher Road SE Calgary AB, T2H 0W3 - Canada T 403-252-8470

dhaydt@galvanic.com

1.4. Emergency telephone number

Emergency number : 403-252-8470

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

No labelling applicable

2.2. Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

3 percent of the mixture consists of ingredient(s) of unknown acute toxicity.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Cellulose	(CAS No) 9004-34-6	60 - 100	Not classified.
Glycerin	(CAS No) 56-81-5	1 - 5	Not classified.
Pyridine, 4-[(4-nitrophenyl)methyl]-	(CAS No) 1083-48-3	1 - 5	Skin Irrit. 2 Eye Irrit. 2A STOT SE 3
Benzenemethanamine, N-phenyl-	(CAS No) 103-32-2	0.5 - 1.5	Skin Irrit. 2 Eye Irrit. 2A STOT SE 3

^{*} The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation

: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact

: If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists.

First-aid measures after eye contact

: In case of contact, immediately flush eyes with plenty of water. Remove contact lenses, if worn. If irritation persists, get medical attention.

First-aid measures after ingestion

If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation

: Dust may cause respiratory tract irritation.

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Symptoms/injuries after skin contact : Dust may cause skin irritation. Symptoms may include redness, drying, defatting and cracking

of the skin.

Symptoms/injuries after eye contact : Dust may cause eye irritation. Symptoms may include discomfort or pain, excess blinking and

tear production, with possible redness and swelling.

Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Treat for surrounding material.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon.

5.3. Advice for firefighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory

protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Keep unnecessary personnel away from

the release.

6.2. Methods and material for containment and cleaning up

For containment : Pick up large pieces, then place in a suitable container. Do not flush to sewer or allow to enter

waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up : Vacuum or sweep material and place in a disposal container.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not

swallow. When using do not eat, drink or smoke.

Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Cellulose (9004-34-6)		
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)

Glycerin (56-81-5)		
ACGIH	Not applicable	
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (mist, total particulate) 5 mg/m³ (mist, respirable fraction)

Pyridine, 4-[(4-nitrophenyl)methyl]- (1083-48-3)		
ACGIH	Not applicable	
OSHA	Not applicable	

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Benzenemethanamine, N-phenyl- (103-32-2)		
ACGIH	Not applicable	
OSHA	Not applicable	

8.2. Exposure controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below

recommended exposure limits.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : None necessary under normal conditions of use. Wear gloves if handling large quantities.

Eye protection : Safety glasses or goggles are recommended when using product.

Skin and body protection : None necessary under normal conditions of use.

Respiratory protection : None necessary under normal conditions of use.

Environmental exposure controls : Maintain levels below Community environmental protection thresholds.

Other information : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully

before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Paper
Colour : Yellow
Odour : Odourless

Odour threshold No data available pН No data available Relative evaporation rate (butylacetate=1) No data available Melting point : No data available No data available Freezing point Boiling point No data available Flash point Not applicable Not applicable Auto-ignition temperature Decomposition temperature No data available Flammability (solid, gas) Not flammable Vapour pressure No data available No data available Relative vapour density at 20 °C Relative density No data available Solubility No data available Partition coefficient: n-octanol/water No data available

Solubility : No data available
Partition coefficient: n-octanol/water : No data available
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

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10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified.

Dhaanan Canaina Tana			
Phosgene Sensing Tape			
LD50 oral rat	> 2000 mg/kg		
LD50 dermal rabbit	> 2000 mg/kg		
LC50 inhalation rat	> 5 mg/l/4h		
Cellulose (9004-34-6)			
LD50 oral rat	> 5000 mg/kg		
LD50 dermal rat	> 2000 mg/kg		
LC50 inhalation rat	> 5800 mg/m³/4h		
Glycerin (56-81-5)			
LD50 oral rat	12600 mg/kg		
LD50 dermal rabbit	> 10 g/kg		
LC50 inhalation rat	> 570 mg/m³/1h		

Skin corrosion/irritation	:	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	:	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	:	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	:	Based on available data, the classification criteria are not met.
Carcinogenicity	:	Based on available data, the classification criteria are not met.
Reproductive toxicity	:	Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure)	:	Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)	:	Based on available data, the classification criteria are not met.
Aspiration hazard	:	Based on available data, the classification criteria are not met.

Symptoms/injuries after inhalation : Dust may cause respiratory tract irritation.

Symptoms/injuries after skin contact : Dust may cause skin irritation. Symptoms may include redness, drying, defatting and cracking

of the skin.

Symptoms/injuries after eye contact : Dust may cause eye irritation. Symptoms may include discomfort or pain, excess blinking and

tear production, with possible redness and swelling.

Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological information

12.1. Toxicity

Ecology – general : Not considered to be harmful to aquatic life. May be harmful to the environment if released in large quantities.

12.2. Persistence and degradability

Phosgene Sensing Tape	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Phosgene Sensing Tape	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

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12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal

regulations.

SECTION 14: Transport information

In accordance with DOT

Not regulated for transport

Additional information

Other information : No supplementary information available.

Special transport precautions : Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Glycerin (56-81-5)			
EPA TSCA Regulatory Flag	Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.		

15.2. US State regulations

Phosgene Sensing Tape	
State or local regulations	This product does not contain a chemical known to the State of California to cause cancer,
	birth defects or other reproductive harm.

SECTION 16: Other information

Date of issue : 02/18/2015 Other information : None.

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