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**1. PRODUCT AND COMPANY IDENTIFICATION**

Product Name: Kovac's Reagent  
Catalog Number: RK75  
Product Use: For laboratory use only

Manufacturer's Name: Dalynn Biologicals Inc.  
Supplier's Name: Dalynn Biologicals Inc.  
Address: 3253 – 34 Avenue NE  
Calgary, AB, Canada  
T1Y 6X2

Telephone: 1-888-404-4045  
Fax: (403) 250-9010  
Chemical Emergency: 1-613-996-6666  
Phone Number Only

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**2. HAZARD IDENTIFICATION****Emergency Overview****GHS Classification**

Flammable liquids (Category 3)  
Acute toxicity, Oral (Category 4)  
Acute toxicity, Inhalation (Category 3)  
Acute toxicity, Dermal (Category 5)  
Skin corrosion (Category 1B)  
Serious eye damage (Category 1)

**GHS Label Elements, Including Precautionary Statements**

Pictogram



Signal word            Danger

Hazard statement(s)

H226            Flammable liquid or vapor.  
H301            Harmful if swallowed.  
H313            May be harmful in contact with skin.  
H314            Causes severe skin burns and eye damage.  
H331            Toxic if inhaled.  
H335 + H336    May cause respiratory irritation, and drowsiness or dizziness

Precautionary statement(s)

P210            Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233            Keep container tightly closed  
P261            Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves & clothing/ eye protection/ face protection.  
P310 Immediately call a poison center or doctor.  
P302+P352 If on skin: Wash with plenty of water.  
P305+P351+P338 If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

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### 3. COMPOSITION & INFORMATION ON INGREDIENTS

Synonyms 4-(Dimethylamino) benzaldehyde solution

INGREDIENT	%	CAS-No.	EC-No.	Index-No.
p-Dimethylaminobenzaldehyde	5	100-10-7	202-819-0	613-140-00-8
Hydrochloric acid	24	7647-01-0	231-595-7	017-002-01-X
Isoamyl alcohol	71	123-51-3	204-633-5	603-006-00-7

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### 4. FIRST AID MEASURES

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move affected individual out of affected area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Take off contaminated clothing. Wash affected area with soap and plenty of water. Take patient to hospital and consult a physician.

#### In case of eye contact

Flush eyes with plenty of water for at least 15 minutes. Take patient to hospital and consult a physician.

#### If swallowed

Do not induce vomiting. Rinse mouth with water if patient is conscious. Take patient to hospital and consult a physician.

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### 5. FIREFIGHTING MEASURES

#### Conditions of flammability

Flammable in the presence of an ignition source when the temperature is above the flash point. Keep away from heat, sparks, open flame. No smoking.

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### Hazardous combustion products

Hazardous decomposition products formed under fire conditions: carbon dioxides, hydrogen chloride gas.

**Explosion data – sensitivity to mechanical impact**

No data available.

**Explosion data – sensitivity to static discharge**

No data available.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid breathing in dust.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Wearing appropriate safety gear including chemical resistant gloves and dust mask or respirator. Soak up with paper towel and place in sealed container and hold for disposal.

**7. HANDLING AND STORAGE****Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use in area with adequate ventilation. Keep away from sources of ignition.

**Conditions for safe storage**

Store at refrigerated conditions at 4 to 8°C away from direct light or sunlight. Keep container tightly closed in a well ventilated place away from ignition sources.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters	Basis
Isoamyl alcohol (3-Methylbutan-1-ol)	123-51-3	TWA	100 ppm 361mg/m3	Canada. Alberta. Occupational Health and Safety Code (table 2:OEL)
Remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required			
		STEL	125 ppm 451 mg/m3	Canada. Alberta. Occupational Health and Safety Code (table 2:OEL)
	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required			
		TWA	100 ppm	Canada. British Columbia OEL
		STEL	125 ppm	Canada. British Columbia OEL
		STEV	125 ppm 452 mg/m3	Canada. Quebec. Regulation respecting occupational health and safety, schedule 1, Part 1
		TWAEV	100 ppm 361 mg/m3	Canada. Quebec. Regulation respecting occupational health and safety, schedule 1, Part 1
		TWA	100 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	125 ppm	USA. ACGIH Threshold Limit Values (TLV)
Hydrochloric acid	7647-01-0	(c)	2 ppm 3 mg/m3	Canada. Alberta. Occupational Health and Safety Code (table 2:OEL)

	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required			
	C	2 ppm	Canada. British Columbia OEL	
	C	5 ppm 7.5 mg/m <sup>3</sup>	Canada. Quebec. Regulation respecting occupational health and safety, schedule 1, Part 1	
A substance which may not be recirculated in accordance with section 108				
	C	2 ppm	USA. ACGIH Threshold Limit Values (TLV)	

## Personal protective equipment

### Respiratory protection

Use in area with adequate ventilation. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type ABEK (EN14387) respirator cartridges as a backup to engineering controls. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands after use.

### Eye protection

Face shield and/or safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Skin and body protection

Wear appropriate clothing such as a lab coat that covers as much of the body as possible. Complete suit can also be worn if desired.

### Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form	Liquid
Color	Light yellow

### Safety data

pH	<1.0 at 20°C (68°F)
Melting point/ freezing point	No data available
Boiling point	No data available
Flash point	43°C (109°F) cc - Isoamyl alcohol
Ignition temperature	340°C (644°F) - Isoamyl alcohol
Auto ignition temperature	No data available

Lower explosion limit	No data available
Upper explosion limit	No data available
Vapor pressure	No data available
Density	No data available
Water solubility	soluble
Partition coefficient/ n-octanol/water	log Pow: 1.35 at 23°C (73°F)
Relative vapor density	No data available
Odour	No data available
Odour threshold	No data available
Evaporation rate	No data available

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## 10. STABILITY AND REACTIVITY

### **Chemical stability**

Stable under recommended storage conditions.

### **Possibility of hazardous reactions**

Vapors may form explosive mixture with air.

### **Chemical stability**

No data available.

### **Materials to avoid**

Strong oxidizing agents. Aluminum.

### **Hazardous decomposition products**

Other decomposition products – No data available

Hazardous decomposition products formed under fire conditions – Carbon oxides, Hydrogen chloride gas

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## 11. TOXICOLOGICAL INFORMATION

### **Acute toxicity**

#### **Oral LD50**

No data available

#### **Inhalation LC50**

No data available

#### **Other information on acute toxicity**

No data available

### **Skin corrosion/irritation**

No data available

### **Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**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 probable, possible or confirmed human carcinogen by ACGIH.

**Reproductive toxicity**

No data available

**Teratogenicity**

No data available

**Specific target organ toxicity – single exposure (GHS)**

No data available

**Specific target organ toxicity – repeated exposure (GHS)**

No data available

**Aspiration hazard**

No data available

**Potential health effects**

- Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.
- Ingestion** May be fatal if swallowed.
- Skin** May be harmful if absorbed through skin. Causes skin burns.
- Eye** Causes eye irritation and burns.

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Synergistic effects**

No data available

**Additional information**

RTECS: Not available

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**12. ECOLOGICAL INFORMATION**

**Toxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**PBT and vPvB assessment**

No data available

**Other adverse effects**

No data available

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**13. DISPOSAL CONSIDERATIONS****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

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**14. TRANSPORT INFORMATION****DOT (US)**

UN Number: 2920    Class: 8 (3)    Packing Group: II

Proper Shipping Name: Corrosive liquids, flammable, N.O.S. (Isoamyl alcohol, hydrochloric acid)

Reportable Quantity (RQ): 5000 lbs

Marine Pollutant: No

Poison Inhalation Hazard: No

**IMDG**

UN Number: 2920    Class: 8 (3)    Packing Group: II    EMS-No: F-E, S-C

Proper Shipping Name: Corrosive liquids, flammable, N.O.S. (Isoamyl alcohol, hydrochloric acid)

Marine Pollutant: No

**IATA**

UN Number: 2920    Class: 8 (3)    Packing Group: II

Proper Shipping Name: Corrosive liquids, flammable, N.O.S. (Isoamyl alcohol, hydrochloric acid)

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**15. REGULATORY INFORMATION**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by them.

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## **16. OTHER INFORMATION**

### **Further information**

Copyright 2018 Dalynn Biologicals Inc. The above information is believed to be correct but does not purport to be all inclusive and shall be only used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Dalynn Biologicals Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

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