

**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Guanosine 5'-triphosphate sodium salt hydrate  
 Product Number : G8877  
 Brand : Sigma  
 Company : Sigma-Aldrich Canada, Ltd  
 2149 Winston Park Drive  
 OAKVILLE ON L6H 6J8  
 CANADA  
 Telephone : +1 9058299500  
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**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Synonyms : 5'-GTP-Na2  
 Formula : C10H16N5O14P3 · xNa+ · yH2O

CAS-No.	EC-No.	Index-No.	Concentration
<b>Ethanol</b>			
64-17-5	200-578-6	603-002-00-5	<= 2 %
<b>Methanol</b>			
67-56-1	200-659-6	603-001-00-X	<= 2 %
<b>Guanosine 5'-(tetrahydrogen triphosphate), trisodium salt</b>			
36051-31-7	252-847-2	-	>= 90 - <= 100 %

**3. HAZARDS IDENTIFICATION****Emergency Overview****Target Organs**

Eyes, Kidney, Liver, Heart, Central nervous system, Nerves.

**WHMIS Classification**

D1A Very Toxic Material Causing Immediate and  
 D1B Serious Toxic Effects  
 D2B  
 Highly toxic by inhalation  
 Toxic by ingestion  
 Toxic by skin absorption  
 Moderate skin irritant  
 Moderate eye irritant

**HMIS Classification**

Health Hazard: 3  
 Chronic Health Hazard: \*

**Flammability:** 0  
**Physical hazards:** 1

**Potential Health Effects**

**Inhalation** Toxic if inhaled. Causes respiratory tract irritation.  
**Skin** Toxic if absorbed through skin. Causes skin irritation.  
**Eyes** Causes eye irritation.  
**Ingestion** Toxic if swallowed.

**4. FIRST AID MEASURES****General advice**

Move out of dangerous area.

**If inhaled**

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

**In case of skin contact**

Wash off with soap and plenty of water.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water.

**5. FIRE-FIGHTING MEASURES****Flammable properties**

Flash point no data available  
 Ignition temperature no data available

**Suitable extinguishing media**

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

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

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

Avoid dust formation.

**Environmental precautions**

Do not let product enter drains.

**Methods for cleaning up**

Sweep up and shovel. Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE****Handling**

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**Storage**

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

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

Components	CAS-No.	Value	Control parameters	Update	Basis
Methanol	67-56-1	TWA	200 ppm	2006-11-29	Canada, British Columbia OEL
Remarks	Contributes significantly to the overall exposure by the skin route.				
		STEL	250 ppm	2006-11-29	Canada, British Columbia OEL
	Contributes significantly to the overall exposure by the skin route.				
		TWAE V	200 ppm 260 mg/m3	2005-12-17	Canada, Ontario OELs
	Skin				
		STEV	250 ppm 325 mg/m3	2005-12-17	Canada, Ontario OELs
	Skin				
		TWA	200 ppm 262 mg/m3	2004-04-30	Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)
	Substance may be readily absorbed through intact skin				
		STEL	250 ppm 328 mg/m3	2004-04-30	Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)
	Substance may be readily absorbed through intact skin				
		TWAE V	200 ppm 262 mg/m3	2006-12-29	Canada, Quebec OELs
	Skin (percutaneous)				
		STEV	250 ppm 328 mg/m3	2006-12-29	Canada, Quebec OELs
	Skin (percutaneous)				
		TWA	200 ppm 262 mg/m3	2007-01-01	Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)
	Substance may be readily absorbed through intact skin				
		STEL	250 ppm 328 mg/m3	2007-01-01	Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)

	Substance may be readily absorbed through intact skin				
Ethanol	64-17-5	TWA	1,000 ppm	2006-11-29	Canada, British Columbia OEL
		TWAE V	1,000 ppm 1,900 mg/m3	2005-12-17	Canada, Ontario OELs
		TWA	1,000 ppm 1,880 mg/m3	2004-04-30	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				
		TWA	1,000 ppm 1,880 mg/m3	2007-01-01	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				
		TWAE V	1,000 ppm 1,880 mg/m3	2006-12-29	Canada, Quebec OELs

**Personal protective equipment****Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

Handle with gloves.

**Eye protection**

Face shield and safety glasses

**Hygiene measures**

General industrial hygiene practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form powder  
 Colour white

**Safety data**

pH no data available  
 Melting point no data available  
 Boiling point no data available  
 Flash point no data available  
 Ignition temperature no data available  
 Lower explosion limit no data available  
 Upper explosion limit no data available

Water solubility no data available

**10. STABILITY AND REACTIVITY****Storage stability**

Stable under recommended storage conditions.

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Oxides of phosphorus, Sodium oxides

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

no data available

**Irritation and corrosion**

no data available

**Sensitisation**

no data available

**Chronic exposure**

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.

**Potential Health Effects**

**Inhalation** Toxic if inhaled. Causes respiratory tract irritation.  
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**Target Organs** Eyes, Kidney, Liver, Heart, Central nervous system, Nerves.,

**12. ECOLOGICAL INFORMATION****Elimination information (persistence and degradability)**

no data available

**Ecotoxicity effects**

no data available

**Further information on ecology**

no data available

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

Observe all federal, state, and local environmental regulations. 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.

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

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**15. REGULATORY INFORMATION****DSL Status**

This product contains the following components that are not on the Canadian DSL nor NDSL lists.

Guanosine 5'-(tetrahydrogen triphosphate), trisodium salt CAS-No. 36051-31-7

**WHMIS Classification**

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 D2B  
 Highly toxic by inhalation  
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 Moderate eye irritant

**16. OTHER INFORMATION****Further information**

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