

# Safety Data Sheet TANK TONIC

Supersedes Date 09/21/2016

Issuing Date 10/19/2016

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** TANK TONIC  
**Recommended use** Biocidal product  
**Information on Manufacturer**  
CHEMSEARCH DIV. OF NCH CORP.  
BOX 152170  
IRVING, TX 75015

**Product Code** 0630  
**Chemical nature** Organic materials  
**Emergency Telephone Number**

**Telephone inquiry**  
972-579-2477

## 2. HAZARD IDENTIFICATION

**Color** Yellow - Brown

**Physical state** Liquid

**Odor** Amine

### GHS

#### Classification

##### Physical Hazards

Flammable liquids

Category 4

##### Health Hazard

Acute Oral Toxicity

Category 4

Acute Dermal Toxicity

Category 3

Acute toxicity - Inhalation (Dusts/Mists)

Category 4

Skin Corrosion/Irritation

Category 1

Serious Eye Damage/Eye Irritation

Category 1

Skin sensitization

Category 1

##### Other hazards

None

### Labeling

#### Signal Word

**DANGER**



#### Hazard statements

H227 - Combustible liquid

H314 - Causes severe skin burns and eye damage

H311 - Toxic in contact with skin

H317 - May cause an allergic skin reaction

H332 - Harmful if inhaled

H302 - Harmful if swallowed

H290 - May be corrosive to metals

#### Precautionary Statements

P210 - Keep away from heat, sparks, open flames or hot surfaces.

P280 - Wear protective gloves, protective clothing, eye protection and face protection.

P264 - Wash face, hands and any exposed skin thoroughly after handling

P363 - Wash contaminated clothing before reuse

P272 - Contaminated work clothing should not be allowed out of the workplace

P260 - Do not breathe vapor or mist

P271 - Use in a well-ventilated area.

P270 - Do not eat, drink or smoke when using this product.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water or shower

P333 + P313 - If skin irritation or rash occurs, get medical attention

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a physician

P304 + P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

P312 - Call a physician if unwell.

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Call a physician if unwell.

P233 - Keep container tightly closed

P403 + P235 - Store in a well-ventilated place. Keep cool.

P501 - Dispose of contents and container in accordance with applicable local regulations.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS No.	Weight %
4-(2-Nitrobutyl)morpholine	2224-44-4	60-100
Methylene dimorpholine	5625-90-1	3-7
Morpholine	110-91-8	3-7
4,4'-(2-Ethyl-2-nitropropane-1,3-diyl)bismorpholine	1854-23-5	3-7
1-Nitropropane	108-03-2	1-5

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

### 4. FIRST AID MEASURES

<b>General advice</b>	Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray mist.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately.
<b>Skin Contact</b>	Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. If symptoms persist, call a physician or Poison Control Centre immediately.
<b>Inhalation</b>	Move to fresh air. In case of shortness of breath, give oxygen. If breathing has stopped, apply artificial respiration. Get medical attention if symptoms occur.
<b>Ingestion</b>	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person. Rinse mouth.
<b>Notes to physician</b>	The product causes burns of eyes, skin and mucous membranes. Control of circulatory system, shock therapy if needed. May cause sensitization of susceptible persons.

### 5. FIRE-FIGHTING MEASURES

<b>Flash Point</b> 160 °F / 71 °C	<b>Method</b> Pensky Marten Closed Tester	
<b>Flammability Limits in Air %:</b> Mixture.	<b>Upper:</b> 11.2	<b>Lower:</b> 1.4
<b>Suitable Extinguishing Media</b>		
Water spray. Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Alcohol-resistant foam.		
<b>Specific hazards arising from the chemical</b>		
Combustible material. Solvent vapors are heavier than air and may spread along floors. Vapors may ignite and explode. Material can create slippery conditions.		
<b>Protective Equipment and Precautions for Firefighters</b>		
As in any fire, wear self-contained breathing apparatus pressure-demand, NOHSC (approved or equivalent) and full protective gear.		
<b>NFPA</b>	<b>Health</b> 3	<b>Flammability</b> 2
<b>HMIS</b>	<b>Health</b> 3	<b>Flammability</b> 2
		<b>Instability</b> 2
		<b>Instability</b> 2

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Use personal protective equipment. Remove all sources of ignition. Ensure adequate ventilation. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.
<b>Environmental Precautions</b>	Do not flush into surface water or sanitary sewer system.
<b>Methods for Containment</b>	Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
<b>Methods for Cleaning Up</b>	Pick up and transfer to properly labeled containers.
<b>Neutralizing Agent</b>	Not applicable.

### 7. HANDLING AND STORAGE

<b>Handling</b>	Keep away from open flames, hot surfaces and sources of ignition. Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray mist.
<b>Storage</b>	Keep away from heat and sources of ignition. Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.
<b>Storage Temperature</b>	<b>Minimum</b> 39 °F / 4 °C
<b>Storage Conditions</b>	<b>Maximum</b> 90 °F / 32 °C
	<b>Indoor</b> X <b>Outdoor</b> <b>Heated</b> <b>Refrigerated</b>

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Morpholine	TWA: 20 ppm Skin	TWA: 20 ppm TWA: 70 mg/m <sup>3</sup>	1400 ppm STEL 30 ppm

		Skin	STEL 105 mg/m <sup>3</sup> TWA: 20 ppm TWA: 70 mg/m <sup>3</sup>
1-Nitropropane	TWA: 25 ppm	TWA: 25 ppm TWA: 90 mg/m <sup>3</sup>	1000 ppm TWA: 25 ppm TWA: 90 mg/m <sup>3</sup>

**Engineering Measures** Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

**Personal Protective Equipment**

**Eye/Face Protection**

Tightly fitting safety goggles. Face-shield.

**Skin Protection**

Wear suitable protective clothing, Impervious gloves.

**Respiratory Protection**

In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**General Hygiene Considerations**

Wear protective gloves/clothing. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	Liquid	<b>Viscosity</b>	Slight viscous
<b>Color</b>	Yellow - Brown	<b>Odor</b>	Amine
<b>Odor Threshold</b>	Not applicable	<b>Appearance</b>	Transparent
<b>pH</b>	10	<b>Specific Gravity</b>	1.07
<b>Evaporation Rate</b>	No data available	<b>Percent Volatile (Volume)</b>	100
<b>VOC Content (%)</b>	100	<b>VOC Content (g/L)</b>	1100
<b>Vapor Pressure</b>	>0.1 mmHg @ 70°F	<b>Vapor Density</b>	No information available
<b>Solubility</b>	Slight	<b>n-Octanol/Water Partition</b>	No data available
<b>Melting Point/Range</b>	No data available	<b>Decomposition Temperature</b>	
<b>Boiling Point/Range</b>	347 °F / 175 °C	<b>Flammability (solid, gas)</b>	No data available
<b>Flash Point</b>	160 °F / 71 °C	<b>Method</b>	Pensky Marten Closed Tester
<b>Autoignition Temperature</b>	500 °F / 260 °C		
<b>Flammability Limits in Air %:</b>	Mixture	<b>Upper: 11.2 Lower: 1.4</b>	

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable. Hazardous polymerization does not occur.
<b>Conditions to Avoid</b>	Keep away from open flames, hot surfaces, and sources of ignition, Extremes of temperature and direct sunlight, To avoid thermal decomposition, do not overheat.
<b>Incompatible Products</b>	Oxidizing agents, Acids.
<b>Decomposition Temperature</b>	
<b>Hazardous Decomposition Products</b>	toxic flammable gases, Carbon oxides, Nitrogen oxides (NOx), Formaldehyde gas.
<b>Possibility of Hazardous Reactions</b>	None under normal processing.

## 11. TOXICOLOGICAL INFORMATION

Product Information

**Acute Toxicity**

<b>LD50 Oral</b> Rat 620 mg/kg	<b>LD50 Dermal</b> Rabbit 420 mg/kg	<b>LC50 Inhalation</b> > 2.33 mg/L
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The following values are calculated based on chapter 3.1 of the GHS document

**Oral LD50** No information available

**Dermal LD50** No information available

**Inhalation LC50**

**Gas** No information available

**Mist** No information available

**Vapor** No information available

**Principle Route of Exposure**

Skin contact, Eye contact, Inhalation.

**Primary Routes of Entry**

Skin Absorption, Skin contact.

**Acute Effects:**

**Eyes**

Corrosive to the eyes and may cause severe damage including blindness.

**Skin**

Causes burns. May be absorbed through the skin in harmful amounts. May cause allergic skin reaction.

**Inhalation**

Harmful by inhalation. Causes burns. Inhalation may cause central nervous system effects. May cause central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

**Ingestion**

Ingestion causes burns of the upper digestive and respiratory tracts.

**Chronic Toxicity**

Repeated and prolonged exposure to solvents may cause brain and nervous system damage. Inhaled corrosive substances can lead to a toxic edema of the lungs. May cause sensitization by skin contact. Liver and kidney injuries may occur.

**Target Organ Effects**

Eyes, Liver, Kidney, Respiratory system, Skin, Central nervous system, Immune system.

**Aggravated Medical Conditions**

Respiratory disorders, Skin disorders, Liver disorders, Kidney disorders, Neurological disorders.

## Component Information

**Acute Toxicity**

Component	Oral LD50	Dermal LD50	Inhalation LC50	Draize Test	Other
Morpholine 110-91-8	= 1050 mg/kg ( Rat )	310 - 810 mg/kg ( Rabbit )	= 8 mg/l (Rat) 4 h	No data available	No data available
1-Nitropropane 108-03-2	= 455 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	= 11.02 mg/L ( Rat ) 1 h	No data available	No data available

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
4-(2-Nitrobutyl)morpholine 2224-44-4	No data available	Skin sensitizer	No data available	No data available	No data available
Morpholine 110-91-8	No data available	No data available	No data available	No data available	Skin; Eyes; Respiratory system; Liver; Kidney
4,4'-(2-Ethyl-2-nitropropane-1,3-diyl)bismorpholine 1854-23-5	No data available	Skin sensitizer	No data available	No data available	No data available
1-Nitropropane 108-03-2	No data available	No data available	No data available	No data available	Central nervous system; Eyes; Liver; Kidney

**Carcinogenicity**

Component	ACGIH	IARC	NTP	OSHA	Other
Morpholine 110-91-8	not applicable	Group 3	not applicable	not applicable	not applicable

**12. ECOLOGICAL INFORMATION**

## Product Information

Toxicity to algae	Toxicity to fish	Daphnia magna (Water flea)
EC50 0.35 mg/L 96 h	72 hour algae value 2.3 mg/L 96h	EC50 3.23 -

## Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Crustacea	Partition coefficient
Morpholine	EC50 = 28 mg/L Pseudokirchneriella subcapitata 96 h	LC50 = 350 mg/L Lepomis macrochirus 96 h LC50 375 - 460 mg/L Oncorhynchus mykiss 96 h LC50 > 1000 mg/L Brachydanio rerio 96 h	EC50 = 57.0 mg/L 30 min	No information available.	-2.55
1-Nitropropane	EC50 = 98 mg/L Desmodesmus subspicatus 72 h	No information available.	EC50 = 42.8 mg/L 5 min EC50 = 45.4 mg/L 15 min EC50 = 50.8 mg/L 30 min	No information available.	0.851

**Persistence and Degradability**

Readily biodegradable.

**Bioaccumulation**

No information available.

**Mobility**

No information available.

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

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency.

**Container Disposal**

Empty containers should be taken for local recycling, recovery, or waste disposal. Do not re-use empty containers.

**14. TRANSPORT INFORMATION****DOT****Proper Shipping Name**

DISINFECTANTS, LIQUID, TOXIC, N.O.S.

**Hazard Class**

6.1

**UN-No**

UN3142

**Packing Group**

III

**Description**

UN3142, DISINFECTANTS, LIQUID, TOXIC, N.O.S.(4-(2-NITROBUTYL)-MORPHOLINE), 8, PG III

**TDG**

**Proper shipping name** DISINFECTANTS, LIQUID, TOXIC, N.O.S.  
**Hazard Class** 6.1  
**UN-No** UN3142  
**Packing Group** III  
**Description** UN3142, DISINFECTANTS, LIQUID, TOXIC, N.O.S.(4-(2-NITROBUTYL)-MORPHOLINE), 8, PG III

**ICAO**

**UN-No** UN3142  
**Proper Shipping Name** DISINFECTANTS, LIQUID, TOXIC, N.O.S.  
**Hazard Class** 6.1  
**Packing Group** III  
**Shipping Description** UN3142, DISINFECTANTS, LIQUID, TOXIC, N.O.S.(4-(2-NITROBUTYL)-MORPHOLINE), 8, PG III

**IATA**

**UN-No** UN3142  
**Proper Shipping Name** DISINFECTANTS, LIQUID, TOXIC, N.O.S.  
**Hazard Class** 6.1  
**Packing Group** III  
**ERG-Code** 6L  
**Shipping Description** UN3142, DISINFECTANTS, LIQUID, TOXIC, N.O.S.(4-(2-NITROBUTYL)-MORPHOLINE), 8, PG III

**IMDG/IMO**

**Proper Shipping Name** DISINFECTANTS, LIQUID, TOXIC, N.O.S.  
**Hazard Class** 6.1  
**UN-No** UN3142  
**Packing Group** III  
**EmS No.** F-A, S-A  
**Description** UN3142, DISINFECTANTS, LIQUID, TOXIC, N.O.S.(4-(2-NITROBUTYL)-MORPHOLINE), 8, PG III

### 15. REGULATORY INFORMATION

**Inventories**

**TSCA** Complies  
**DSL** Complies

**U.S. Federal Regulations****FIFRA**

This chemical is a pesticide product registered by the US EPA and is subject to certain labeling requirements under federal pesticide laws. These requirements differ from the classification criteria and hazard information required for SDSs, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**DANGER**

Corrosive - causes irreversible eye damage  
 Harmful if swallowed  
 Harmful if absorbed through skin  
 Prolonged or frequently repeated skin contact may cause an allergic reaction in some individuals.  
 Causes skin sensitization  
 The pesticide is toxic to fish and aquatic organisms.

**SARA 313**

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.

**SARA 311/312 Hazardous Categorization**

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

**CERCLA**

### 16. OTHER INFORMATION

**Prepared By** Adrienne McKee  
**Supersedes Date** 09/21/2016  
**Issuing Date** 10/19/2016  
**Reason for Revision** No information available.  
**Glossary** No information available.  
**List of References.** No information available.

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