

TITAN PLUS

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Date prepared: 28 June 2016  
MSDS : TITAN PLUS SDS GHS

## 1. IDENTIFICATION

### Product Identifier

Product Name TITAN PLUS

### Recommended use of the chemical and restrictions on use

Recommended use Liquid detergent – automatic dishwasher  
Restrictions on use For industrial use only

### Supplier details

West Penetone Inc.  
11411-160 Street  
Edmonton, AB,  
T5M3T7  
Tel: 780-454-3919

### Emergency Telephone Number

Canutec (613)-996-6666

## 2. HAZARDS IDENTIFICATION

### Classification

Corrosive to metals	Category 1
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 2

### Label Elements

#### DANGER

#### Hazard Statements

May be corrosive to metals  
Causes severe skin burns and eye damage  
Suspected of causing cancer



### Precautionary Statements - Prevention

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep only in original packaging.  
Do not breathe dusts or mists.  
Wash face, hands and any exposed skin thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.

### Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.  
If exposed or concerned: get medical advice/attention.  
Absorb spillage to prevent material-damage.

### Precautionary Statements - Storage

Store in corrosion resistant/container with a resistant inner liner. Store locked up.

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant according to local, provincial/federal regulations.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	Weight %
trisodium nitrilotriacetic acid	5064-31-3	10-30
tetrasodium ethylenediaminetetraacetate	64-02-8	7-13
sodium hydroxide	1310-73-2	5-10
alkyl ether hydroxypropyl sultaine	108797-84-8 / 108797-85-9	0.5-1.5

**4. FIRST AID MEASURES**

<b>Eye contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
<b>Inhalation</b>	Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
<b>Ingestion</b>	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

**Most important symptoms and effects, both acute and delayed**

Contact with eyes may cause serious corneal injury or damage leading to irritation, discomfort or pain, excess blinking and tear production with marked excess redness and swelling of the conjunctiva, and possible blindness. Contact with skin may cause burns or irritation with local redness or blistering. See Section 2 for possible delayed effects.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

None.

**Specific hazards arising from the chemical**

During fire, gases hazardous to health may be formed including oxides of carbon, nitrogen, and sulfur and other irritating gases.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Use appropriate containment to avoid environmental contamination.

**Environmental Precautions**

Avoid discharge into drains/surface waters/groundwater.

**Methods and material for containment and cleaning up**

Contain and solidify with inert absorbent materials. Keep in suitable, closed containers for disposal. Following product recovery, flush area with water. For large spills, stop flow of material, prevent product from entering drains, and pump off product where this is without risk and possible. Proceed as above.

## 7. HANDLING AND STORAGE

### Precautions for Safe Handling

**Handling** Avoid contact with skin and eyes. Do not handle until all safety precautions or special instructions have been read and understood.

### Conditions for safe storage, including any incompatibilities

**Storage** Store locked up, in original container, away from incompatible materials.

**Incompatible Materials** Strong oxidizing materials, acids, amphoteric or light metals.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

Only constituents with exposure limits are listed. Any constituent not listed has no known exposure limit.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
sodium hydroxide 1310-73-2	2 mg/m <sup>3</sup> ceiling	2 mg/m <sup>3</sup> ceiling	10 mg/m <sup>3</sup>

### Appropriate engineering controls

**Engineering Controls** Under the intended modes of use and application, exposure control measures are not required.

### Individual protection measures, such as personal protective equipment

**Eye/face Protection** Safety glasses with side shields or goggles.

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory Protection** No personal respiratory equipment normally required.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Routinely wash work clothing to remove contaminants.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### **APPEARANCE :**

Clear, tan liquid

### **ODOR**

Detergent

### **ODOR THRESHOLD :**

Not applicable

### **pH :**

12.5-13.5

### **MELTING POINT / FREEZING POINT :**

Approx. -15°C

### **BOILING POINT/BOILING RANGE :**

Approx. 100°C

### **FLASH POINT :**

None

### **EVAPORATION RATE, water = 1 :**

1

### **FLAMMABILITY (SOLID, GAS):**

Not applicable

### **VAPOR PRESSURE, mm Hg AT 20°C :**

Not applicable

### **VAPOR DENSITY (Air = 1) :**

Not applicable

### **RELATIVE DENSITY AT 20°C:**

1.245-1.255

### **SOLUBILITY IN WATER :**

Complete

### **PARTITION COEFFICIENT, N-OCTANOL/WATER :**

Not available

### **AUTO-IGNITION TEMPERATURE :**

None

### **DECOMPOSITION TEMPERATURE:**

Not available

### **VISCOSITY:**

Not available

### **FLAMMABLE LIMITS :**

**UPPER:** Not applicable **LOWER :** Not applicable

**10. STABILITY AND REACTIVITY****Reactivity**

Not reactive.

**Chemical Stability**

Stable under normal conditions.

**Possibility of hazardous reactions**

Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to Avoid**

Store locked up, in original container, away from incompatible materials.

**Incompatible Materials**

Strong oxidizing materials, acids, amphoteric or light metals.

**Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decompositions can lead to release of irritating gases and vapors such as oxides of carbon, nitrogen, and sulfur as well as other low molecular weight hydrocarbons.

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

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
trisodium nitrilotriacetic acid 5064-31-3	1740 mg/kg (rat)	Not listed	Not listed
tetrasodium ethylenediaminetetraacetate 64-02-8	>1780-<2000 mg/kg (rat)	Not listed	>1 mg/L (aerosol) (rat) – 6 h
sodium hydroxide 1310-73-2	500 mg/kg (rabbit)	Not listed	Not listed
Alkyl ether hydroxypropyl sultaine 108797-84-8 / 108797-85-9	13800 mg/kg (rat)	Not listed	Not listed

**Information on likely sources of exposure****Serious eye damage/irritation**

Causes serious eye damage.

**Skin corrosion/irritation**

May cause burns or irritation with local redness or blistering.

**Ingestion**

Expected to be a low ingestion hazard.

**Inhalation**

Expected to be a low inhalation hazard.

**Delayed and immediate effects and also chronic effects from short and long-term exposure****Respiratory or skin sensitization**

Not a sensitizer.

**Germ cell mutagenicity**

None known.

**Carcinogenicity**

trisodium nitrilotriacetate (CAS 5064-31-3)

2B Possibly carcinogenic to humans

**Reproductive toxicity**

No information available

**STOT - single exposure**

No information available.

**STOT-repeated exposure**

No information available.

**Aspiration Hazard**

None.

**Symptoms related to the physical, chemical and toxicological characteristics**

Eye damage or irritation. Skin burns or irritation. See Section 2 for further characteristics.

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

If available, ecotoxicity values of individual components are shown below.

Chemical Name	Fish	Waterflea	Algae
trisodium nitrilotriacetic acid 5064-31-3	127 mg/L: 96 h pimephales promelas LC50	560-1000 mg/L: 48 h daphnia magna EC50	>100 mg/L: 72 h desmodesums subspicatus EC50
tetrasodium ethylenediaminetetraacetate 64-02-8	>100 mg/L: 96 h lepomis macrochirus LC50	>100 mg/L: 48 h daphnia magna EC50	>100 mg/L: 72 h green algae EC50
sodium hydroxide 1310-73-2	1149 mg/kg: 96 h rainbow trout LC50	Not available	Not available

**Persistence and degradability**

Not expected to be readily biodegradable

**Bioaccumulative potential**

Accumulation in organisms is not to be expected.

**Mobility in soil**

No information available

**Other adverse effects**

Do not release untreated into natural waters. No other adverse environmental effects are expected.

**13. DISPOSAL CONSIDERATIONS****Waste Disposal Method**

Dispose of in accordance with local regulations.

**Contaminated Packaging**

Empty containers should be taken for local recycling, recovery or waste disposal.

**14. TRANSPORT INFORMATION****TDG classification**

UN 3266, Corrosive Liquid, Basic, Inorganic, N.O.S. (sodium hydroxide solution), Class 8, PG II

**15. REGULATORY INFORMATION**

All ingredients are listed on the DSL

**16. OTHER INFORMATION****Preparation Date**

28 June, 2016

**Revision Date**

not applicable

**Revision Note**

not applicable

**Disclaimer**

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of SDS**