SAFETY DATA SHEET

1. IDENTIFICATION

Product Identifier
Product Name TITAN PLUS
Chemical Name Alkali detergent solution

Recommended use of the chemical and restrictions on use
Recommended use Liquid detergent – automatic dishwasher, industrial descaling applications
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

Main office – (780)-454-3919, 8:00 AM to 4:30 PM MST

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 SWALLOWED: Rinse mouth. Do NOT induce vomiting. 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 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 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

* The actual concentrations have been withheld as a trade secret

4. FIRST AID MEASURES

Ingestion Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Skin contact Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

Inhalation Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Eye contact 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.

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^3 ceiling	2 mg/m^3 ceiling	10 mg/m^3

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. -15ºC

BOILING POINT/BOILING RANGE:
Approx. 100ºC

FLASH POINT:
None

EVAPORATION RATE, water = 1:
1

FLAMMABILITY (SOLID, GAS):
Not applicable

VAPOR PRESSURE, mm Hg AT 20ºC:
Not applicable

VAPOR DENSITY (Air = 1):
Not applicable

RELATIVE DENSITY AT 20ºC:
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

UN Number:	3266
UN Proper Shipping Name:	Corrosive Liquid, Basic, Inorganic, N.O.S. (sodium hydroxide solution)
Transport Hazard Class(es)	
Class:	TDG: 8 US DOT: 8 IMDG: 8
Label(s):	8
Packing Group:	II
Marine Pollutant:	No

Special precautions for user: None established

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not determined

15. REGULATORY INFORMATION

Canada (DSL/NDSL)
All ingredients contained in this product are in compliance with the Canadian Environmental Protection Act and are listed on the DSL or are exempt.

United States (TSCA)
All ingredients contained in this product are listed on the TSCA inventory or are exempt.

HMIS Information:

Health:	3
Flammability:	0
Reactivity:	0

16. OTHER INFORMATION

Preparation Date	28 June 2016
Revision Date	8 July 2025
Revision Note	**Revision 2** – Adjustments to Section 1

Disclaimer
The information provided on this SDS 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