



Material Safety Data Sheet

SECTION 1: Product and Company Identification

Product identifier

Substance name: Amine-terminated Polyether ZT-1500
Alternate name: Polyether amine
Product name:
CAS NO.: 64852-22-8

Details of the supplier of the safety data sheet

Manufacturer: ZIBO ZHENGDA POLYURETHANE CO.,LTD.
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Web: www.china-polyol.com

Distributed by: Palmer Holland, Inc.
25000 Country Club Blvd., Suite 444
North Olmsted, OH 44070-5331
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Palmer Holland: 800-635-4822
Chemtrec: 800-424-9300

SECTION 2: Hazards identification

GHS Classification

Skin irritation	Category 2
Serious eye damage	Category 1
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3
Skin irritation	Category 2

GHS Label element

Hazard pictograms



Signal Word

Danger

Hazard Statements

H315 Causes skin irritation.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention:



P264 Wash skin thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear eye protection/ face protection.

P280 Wear protective gloves.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 + P310 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/doctor.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards: None known

SECTION 3: Composition/information on ingredients

Substance / Mixture Substance

Hazardous ingredients

Chemical Name	CAS-No	Concentration(%)
POLYETHERAMINE	64852-22-8	<100

SECTION 4: First aid measures

General advice:	Move out of dangerous area. Consult a physician. Show this material safety data sheet to the doctor in attendance. Do not leave the victim unattended.
If inhaled:	If unconscious place in recovery position and seek medical advice If symptoms persist, call a physician.
In case of skin contact:	If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact:	Small amounts splashed into eyes can cause irreversible



tissue damage and blindness.

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Continue rinsing eyes during transport to hospital.

Remove contact lenses.

Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist

If swallowed:

Keep respiratory tract clear.

Do NOT induce vomiting.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

Take victim immediately to hospital.

Most important symptoms and effects, both acute and delayed:

None Known

Notes to Physician

No information available

SECTION 5: Firefighting measures

Suitable extinguishing media:

Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media:

Do not use water jet.

Specific hazards arising from the chemical:

Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products:

Decomposition products may include the following materials:



carbon dioxide

carbon monoxide

nitrogen oxides

Special protective actions for fire-fighters:

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters:

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.
Evacuate personnel to safe areas.
Ensure adequate ventilation.
In case of inadequate ventilation wear respiratory protection. □

Environmental precautions

Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities

Methods and materials for containment and cleaning up

Neutralize with acid.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.



SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion: Normal measures for preventive fire protection.

Advice on safe handling: Do not breathe vapors/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage: Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid: Keep away from strong acids.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hand protection Remarks Impervious gloves
The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration



the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Eye protection

Eye wash bottle with pure water

Tightly fitting safety goggles.

Wear face-shield and protective suit for abnormal processing problems.

Ensure that eyewash stations and safety showers are close to the workstation location

Skin and body protection

Impervious clothing

Choose body protection according to the amount and concentration of the dangerous substance at the work place

Hygiene measures

When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

liquid

Color

colorless

Odor

ammoniacal

Odor Threshold

No data available

PH

11.2

Melting point/range

No data available

Boiling point

No data available

Flash point

213 °C

Method: Pensky-Martens closed cup

Evaporation rate

No data available



Flammability (solid, gas)	No data is available on the product itself.
Flammability (liquid)	No data is available on the product itself.
Upper explosion limit	No data available
Lower explosion limit	No data available
Vapor pressure	<0.01333 hPa
Relative vapor density	1
Relative density	1
Density	No data is available on the product itself.
Solubility(ies) Water solubility	insoluble
Solubility in other solvents :	No data is available on the product itself.
Partition coefficient: noctanol/water	No data is available on the product itself.
Autoignition temperature	No data is available on the product itself.
Thermal decomposition	No data is available on the product itself.
Decomposition temperature	No data is available on the product itself.
Viscosity Viscosity, kinematic	819mm ² /s(25 ⁰ C)
Molecular weight	5000g/mol



SECTION 10. STABILITY AND REACTIVITY

Reactivity	No dangerous reaction known under conditions of normal use
Chemical stability	The product is chemically stable.
Possibility of hazardous reactions	No decomposition if stored and applied as directed. Stable under normal conditions.
Conditions to avoid	No data available
Incompatible materials	No data available
Hazardous decomposition products	Carbon monoxide Carbon dioxide (CO ₂) Nitrogen oxides (NO _x)

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure No data is available on the product itself.

Acute toxicity

Acute oral toxicity – Product: LD50 (Rat, male and female): 2690 mg/kg
Method: Calculation method

Acute inhalation toxicity No data available

Components:

Acute dermal toxicity LD50 (Rabbit): > 12,500 mg/kg

Acute toxicity (other routes of administration) No data available

Skin corrosion/irritation



Ingredients:

Remarks: Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation

Ingredients:

Remarks: May cause irreversible eye damage.

Respiratory or skin sensitization

Product:

Routes of exposure: Skin

Species: Guinea pig

Result: Does not cause skin sensitization.

Assessment No data available

Germ cell mutagenicity

Product:

Genotoxicity in vitro No data available

Genotoxicity in vivo No data available

Carcinogenicity No data available

Carcinogenicity -
Assessment No data available

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.

OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Effects on fertility No data available

Effects on fetal development No data available

Reproductive toxicity -
Assessment No data available



STOT-single exposure No data available

STOT-repeated exposure No data available

Repeated dose toxicity No data available

Repeated dose toxicity - No data available
Assessment

Aspiration toxicity No data available

Experience with human exposure

General Information: No data available

Inhalation: No data available

Skin contact: No data available

Eye contact: No data available

Ingestion: No data available

Toxicology, Metabolism, Distribution No data available

Neurological effects No data available

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish - Product LC50: > 68 mg/l
Exposure time: 96 h



Toxicity to daphnia and other aquatic invertebrates No data available

Toxicity to algae No data available

M-Factor (Acute aquatic toxicity) No data available

Toxicity to fish (Chronic toxicity) No data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) No data available

M-Factor (Chronic aquatic toxicity) No data available

Components:

Toxicity to bacteria - Product LC50: 68 mg/l
Exposure time: 96 h

Toxicity to soil dwelling organisms No data available

Plant toxicity No data available

Sediment toxicity No data available

Toxicity to terrestrial organisms No data available

Ecotoxicology Assessment Acute aquatic toxicity No data available

Components:

Chronic aquatic toxicity No data available

Toxicity Data on Soil No data available

Other organisms relevant to the environment No data available

Further information: No data available



Persistence and degradability

Biodegradability - Product Result: Not readily biodegradable.
Biodegradation: < 5 %
Exposure time: 28 d

Biochemical Oxygen Demand (BOD) No data available

Chemical Oxygen Demand (COD) No data available

BOD/COD No data available

ThOD No data available

BOD/ThOD No data available

Dissolved organic carbon (DOC) No data available

Physico-chemical removability No data available

Stability in water No data available

Photodegradation No data available

Impact on Sewage Treatment No data available

Bioaccumulative potential

Bioaccumulation No data available

Partition coefficient: n-octanol/water - Product No data available

Mobility in soil

Mobility No data available

Distribution among environmental compartments No data available

Stability in soil No data available



Other adverse effects

Environmental fate and pathways No data available

Results of PBT and vPvB assessment No data available

Endocrine disrupting potential No data available

Adsorbed organic bound halogens (AOX) No data available

Hazardous to the ozone layer

Ozone-Depletion Potential Regulation: 40 CFR Protection of Environment; Part 82
Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A +B).

Additional ecological information - Product An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life with long lasting effects.

Global warming potential (GWP) No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers

SECTION 14. TRANSPORT INFORMATION

International Regulation



IATA

Not regulated as dangerous goods

IMDG

Not regulated as dangerous goods

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied

National regulations

DOT Classification

Not regulated as dangerous goods

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 311/312 Hazards

Acute Health Hazard

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects

The ingredients of this product are reported in the following inventories:

CH INV

On the inventory, or in compliance with the inventory

TSCA

On the inventory, or in compliance with the inventory

DSL

All components of this product are on the Canadian DSL.

AICS

On the inventory, or in compliance with the inventory

NZIoC

On the inventory, or in compliance with the inventory

ENCS

On the inventory, or in compliance with the inventory

KECI

On the inventory, or in compliance with the inventory



PICCS	On the inventory, or in compliance with the inventory
IECSC	On the inventory, or in compliance with the inventory
TCSI	On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

TSCA - 5(a) Significant New Use Rule List of Chemicals

No substances are subject to a Significant New Use Rule.

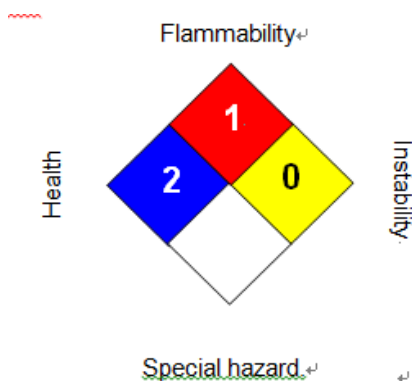
US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION □ SECTION

Further information

NFPA:



HMIS III:

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High

4 = Extreme, * = Chronic

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淄博德信联邦化学工业有限公司

ZIBO DEXIN LIANBANG CHEMICAL INDUSTRY CO.,LTD

AMINE-TERMINATED POLYETHER ZT-1500

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Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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