Safety Data Sheet

According to Hazard Communication Standard (29 CFR 1910.1200)

Polyether amine ZD-1400

Version 2.0

Issue date: 30/04/2025

Revision date: 30/04/2025 **SDS record number: CSSS-TCO-010-151109**

1. Identification

Product name	Polyether amine ZD-1400
Synonyms	-
CAS #	9046-10-0
Product code	-
Product use	Key ingredient in the formulation of polyurea and RIM; Co-curing agent in epoxy systems which require increased flexibility and toughness; General polymer flexibilizer.
Manufacturer/Supplier	
Supplier(Manufacturer):	Zibo Zhengda Polyurethane Co.,Ltd.
Address:	RM1904, BUILDING E, CHUANGYE HUOJU SQUARE, NO.111 LIUQUAN ROAD,ZHANGDIAN, ZIBO, SHANDONG,P.R.CHINA
Contact person(E-mail):	arnie@dexin-chem.com
Telephone:	0086-533-3146343
Fax:	0086-533-3142021
Emergency telephone Number:	0086-533-3146343

2. Hazard(s) identification

GHS classification

Physical hazards	Not classified	
Health hazards	Skin corrosion/irritation	Category 1C
	Eye damage/irritation	Category 1
Environmental hazards	Not classified	

GHS label elements

Hazard Pictograms

Signal word Danger

Hazard statement Causes severe skin burns and eye damage

Precautionary statement

Prevention

Do not breathe dusts or mists.

Wash hands thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Response

If swallowed: Rinse mouth. Do NOT induce vomiting.

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/doctor/…

If in eyes: Rinse cautiously with water for several minutes. Remove contact

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

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local regulation.

Other hazards Not available.

3. Composition / information on ingredients

Components	CAS#	Percent
Polyether amine ZD-1400	9046-10-0	100%

4. First-aid Measures

First aid procedures

Eye contact Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Skin contact Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Ingestion Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Notes to physician Treat symptoms.

5. Fire-fighting measures

Flammable properties Not available.

Extinguishing media

Suitable extinguishing media Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media	Not available.
Firefighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Protective respirator with independent air supply. According to size of fire Full protection, if necessary. Dispose of contaminated extinction water according to official regulations.
Hazardous combustion products	In case of fire, the following can be released: carbon dioxide, carbon monoxide, nitrogen oxides.

6. Accidental release measures

Personal precautions	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Methods for cleaning up	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

7. Handling and storage

Handling	Put on appropriate personal protective equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.
Storage	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Store locked up. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been opened must becarefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls / personal protection

Control parameters:

Occupational exposure limits	This substance has no PEL, TLV, or other recommended exposure limit.
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls:	Use in a well-ventilated area.

Individual protection measures, such as personal protective equipment:

Eye / face protection	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
Skin protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): butyl rubber, Ethyl Vinyl Alcohol Laminate (EVAL), nitrile rubber. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	In case of inadequate ventilation wear respiratory protection.
General hygiene considerations	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing.

9. Physical and chemical properties

Appearance	
Physical state	Liquid
Form	Liquid
Color	Colorless to pale yellow,Transparent
Odor	Amine-like
Odor threshold	Not available
pH	Not available
Vapor pressure	0.93 mm Hg 235°C, 4.95mm Hg 254°C
Melting point/Freezing point	Not available
initial boiling point and boiling range	Not available
Flash point	227°C (Pensky-Martin closed cup)
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Explosion limits	Not available

Vapor density	Not available
Relative density	Not available
Solubility (water)	Miscible
Partition coefficient	1.34 (25 °C)
Auto-ignition temperature	230 °C
Decomposition temperature	Not available
Specific gravity	Not available
Density	0.994 g/ml (25 °C)
Flammability limits in air, upper, %by volume	Not available
Flammability limits in air, lower, % by volume	Not available
VOC	Not available
Percent volatile	Not available
Other data	
Viscosity	877 cSt (25 °C)
Color (Apha)	≤25
Water Content (%)	≤0.25
Total amine(meq/g)	0.45-0.52
Total Acetylatables(meq/g):	0.46-0.53
Primary amine(%)	≥95

10. Stability and reactivity

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Incompatible materials.
Incompatible materials	Acids.
Hazardous decomposition products	Ammonia, carbon monoxide, carbon dioxide, aldehydes, ketones.
Possibility of hazardous reactions	No dangerous reactions known.

11. Toxicological information

Toxicokinetics, metabolism and distribution:

Non-human toxicological data:	Not available

Information on toxicological effects:

Acute toxicity:

LD50(Oral, Rat):	480 mg/kg bw
LD50(Dermal, Rabbit):	2090 mg/kg bw
LC50(Inhalation, Rat):	Not available
Skin corrosion/Irritation:	Causes severe skin burns and eye damage.
Serious eye damage/irritation:	Causes serious eye damage.
Respiratory or skin sensitization:	Not classified.
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

12. Ecological information

Toxicity:

Acute toxicity	Time	Species	Method	Evaluation	Remarks

LC50	＞100mg/L	96h	Fish	OECD 203	N/A	N/A
EC50	15 mg/L	48h	Daphnia	OECD 202	N/A	N/A
LC50	135 mg/L	72h	Algae	OECD 201	N/A	N/A

Persistence and degradability: Under test conditions no biodegradation observed.

Bioaccumulative potential: Not available.

Mobility in soil: Not available.

Results of PBT&vPvB assessment: Not available.

Other adverse effects: No known significant effects or critical hazards.

13. Disposal considerations

Disposal instructions Dispose of contents/container in accordance with local/regional/national/ international regulations.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Basic shipping requirements:

UN number UN2735

Proper shipping name POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Polyether amineZD-1400)

Hazard class 8

Packing group III

Environmental hazards No

IATA

UN number UN2735

UN proper shipping name POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Polyether amineZD-1400)

Transport hazard class(es) 8

Packing group III

Environmental hazards No

IMDG

UN number UN2735

UN proper shipping name POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Polyether amineZD-1400)

Transport hazard class(es) 8

Packing group III

Environmental hazards No

15. Regulatory information

US federal regulations

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

Classified hazard categories Skin corrosion or irritation

Serious eye damage or eye irritation

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

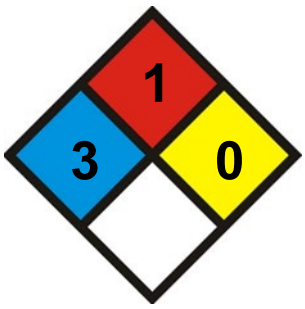
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

HMIS®ratings

NFPA ratings



Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.

Issue date

30-04-2025