

**SAFETY DATA SHEET**  
**COLLOY A-Z-N COMPLEXER 320**  
437320

**SECTION 1: COMPANY AND MIXTURE IDENTIFICATION**

**1.1 Product Name:** COLLOY A-Z-N COMPLEXER 320

**1.2 Product Type and Use:** Metal Finishing Additives

**1.3 Manufacturer:**

Columbia Chemical Corp.  
1000 Western Drive  
Brunswick, OH, 44212  
330-225-3200  
eh&s@columbiachemical.com

**Only Representative:**

Intertek France  
Zi Ecoparc II  
27400 Heudebouville  
France  
T: +33 (0) 385 99 1280

**1.4 Emergency Telephone Numbers**

CHEMTEL  
US & CANADA 800-255-3924  
INTERNATIONAL 01-813-248-0585

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1 Classification of the mixture according to GHS (EC 1272 -2008)**

Eye Dam. 1, H318  
Acute Tox. 2 (Inhale), H330  
STOT SE 3, H335

**2.2 GHS Pictograms and H/P Statements**



**Hazard and Precautionary Statements:**

H318: Causes serious eye damage  
H335: May cause respiratory irritation

P260: Do not breathe dust, fume, gas, mist, vapours, spray.

P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P501: Dispose of contents/container in accordance with all local/regional/national/international regulations.

H330: Fatal if inhaled

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

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

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P363: Wash contaminated clothing before reuse.

**2.3 Additional Information:**

NONE

**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

Name	Product Identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2, 2'-DIAMINODIETHYLAMINE	CAS no. 111-40-0 EC no. 203-865-4 Reach no. Low Volume Exempt JCSL no. 2-159	< 20%	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317

**SECTION 4: FIRST AID MEASURES****4.1 Description of first aid measures**

Eye Contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Inhalation:	Move exposed individual to fresh air. Give oxygen if breathing is difficult. Provide artificial respiration using a mask equipped with a one-way valve if victim is not breathing. Call emergency medical services.
Ingestion:	Provide large quantities of water if victim is conscious and call emergency medical services immediately. Never give anything by mouth to an unconscious person.

**4.2 Important symptoms and effect****acute and delayed**

Symptoms/Injuries:	May cause severe burns. Symptoms might include pain, redness, and tissue damage.
Inhalation:	Inhalation of mist may cause irritation of the respiratory system.
Skin contact:	May cause severe burns. Symptoms might include pain, redness, and tissue damage.
Eye contact:	Causes serious eye damage.
Ingestion:	May cause severe irritation of the digestive tract, nausea, vomiting, or diarrhea.

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

Seek immediate medical attention if splashed in eyes or if there is a difficulty in breathing while using this product.

**SECTION 5: FIRE FIGHTING MEASURES****5.1 Extinguishing media**

Dry chemical powder. Water spray. Carbon dioxide (CO<sub>2</sub>)

**5.2 Special Hazards from the mixture**

Mixture itself does not burn but may decompose upon heating to produce fumes. Cool plastic drum, pail or tote containers which may swell or rupture upon heating.

**5.3 Advice for firefighters**

Protection from firefighting:	Use self-contained breathing apparatus and chemically protective clothing. For further information refer to section 8, Exposure-controls/personal protection.
Other Information:	Avoid eye and skin contact.  HMIS: 3-0-2-D

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures****6.1.1 Non-emergency personnel**

Ensure adequate ventilation, Use personal protective equipment.

**6.1.2 Emergency responders**

Ensure adequate ventilation, Use personal protective equipment.

**6.2 Environmental precautions**

Avoid discharge into soil, water or air.

**6.3 Containment and clean up**

Methods for cleaning up:	Contain spills, cover with absorbent, carefully sweep up material and transfer to a suitable container for disposal.
Other information:	Comply with local regulations for disposal.

**6.4 Reference to other sections**

Refer to section 8.

**SECTION 7: HANDLING AND STORAGE****7.1 Precautions for safe handling**

Avoid contact with skin, eye and clothing. Avoid breathing dust, mist or spray. Refer to section 8 for exposure controls.

**7.2 Storage and Incompatibles**

Storage Condition(s):	Shelf life is two (2) years from date of manufacture.  Store tightly closed in a dry, cool and well-ventilated place.
Incompatible materials:	Product may react with strong acidic and strong basic solutions.
Storage area:	Floors should be impenetrable, resistant to liquids and easy to clean. Keep away from heat and direct sunlight. Do not store near oxidizing agents. Store in dry, cool, well-ventilated area.
7.3 Specific end use(s)	Metal Finishing

**SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**

## 8.1 Control Parameters

## 2, 2'-DIAMINODIETHYLAMINE (111-40-0)

USA

ACGIH - TEL

4.0 mg/m3

## 8.2 Exposure Controls

<b>Exposure Controls:</b>	Maintain employee exposures to levels below the applicable exposure limits.
<b>Ventilation:</b>	Use local or general exhaust to reduce airborne exposures.
<b>Respiratory Protection:</b>	Respiratory protection should not be required under normal use with proper engineering controls. A respiratory program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed if workplace conditions warrant use of a respirator.
<b>Hand Protection:</b>	Wear chemical resistant gloves when handling any chemical product.
<b>Eye Protection:</b>	Wear chemical safety glasses and/or face shield when handling chemical products.
<b>Skin Protection:</b>	Wear protective clothing as appropriate.
<b>Other:</b>	Launder contaminated clothing before reuse.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

## 9.1 Information on basic physical and chemical properties

<b>Appearance:</b>	Clear, nearly colorless liquid	<b>Flammability (solid,gas):</b>	No data available
<b>Odour:</b>	Strong amine odor	<b>Explosive Limits:</b>	No data available
<b>Odour Threshold:</b>	No data available	<b>Vapor Pressure:</b>	No data available
<b>pH:</b>	11.4 - 12.9	<b>Vapour Density:</b>	No data available
<b>Melting Point:</b>	No data available	<b>Relative Density:</b>	1.034 - 1.054
<b>Solidification Point:</b>	No data available	<b>Solubility:</b>	Complete in water
<b>Boiling Point:</b>	No data available	<b>Self Ignition Temperature:</b>	No data available
<b>Flash point:</b>	No data available	<b>Decomposition Temperature:</b>	No data available
<b>Evap rate rel to butylacetate:</b>	No data available	<b>Viscosity:</b>	No data available

## SECTION 10: STABILITY AND REACTIVITY

<b>10.1 Reactivity</b>	Product is an acidic solution and may react vigorously with alkaline solutions.
<b>10.2 Chemical Stability</b>	Product may not be stable under heat, moisture, pressure, or exposure to incompatible materials.
<b>10.3 Possibility of hazardous reactions</b>	Product will not undergo polymerization.
<b>10.4 Conditions to avoid</b>	Keep away from heat. Keep out of direct sunlight.
<b>10.5 Incompatible materials</b>	Product may react with strong acidic and strong basic solutions.
<b>10.6 Hazardous decomposition products</b>	Oxides of nitrogen, chromium and sulfur.

## SECTION 11: TOXICOLOGICAL INFORMATION

## 11.1 Toxicological effects

<b>Acute toxicity:</b>	No known acute toxicity effects when used as directed.
<b>Skin corrosion/irritation:</b>	Causes serious eye damage and skin irritation.
<b>Respiratory or skin sensitization:</b>	No known skin sensitization affects when used as directed.
<b>Embryotoxic, Teratogenic, or Mutagenic:</b>	May damage fertility or the unborn child.
<b>Carcinogenicity:</b>	Products that contain cobalt salts may cause cancer based on testing data. Risk of cancer depends on level of exposure.
<b>Reproductive or Gonadotoxicity:</b>	Product has components that may damage fertility or the unborn child.
<b>Specific target organ toxicity (single exposure):</b>	No known Specific Target Organ Toxicity when used as directed.

## CARCINOGENS :

IARC : NONE  
NTP : NONE

OSHA : NONE  
EU : NONE

## SECTION 12: ECOLOGICAL INFORMATION

<b>12.1 Toxicity</b>	Material is harmful to aquatic life with long lasting effects.
<b>12.2 Persistence &amp; Degradability</b>	No persistence and biodegradability data available.
<b>12.3 Bioaccumulative Potential</b>	No known bioaccumulative potential.
<b>12.4 Mobility in Soil</b>	Spillage of material can lead to penetration into soil and groundwaters.
<b>12.5 PBT and vPvB Assessment</b>	This product does NOT contain substances which are persistent, bioaccumulative and toxic, or substances that are very persistent or very bioaccumulative per REACH Annex XIII.
<b>12.6 Other Adverse Effects</b>	No other adverse effects known.

## SECTION 13: DISPOSAL CONSIDERATIONS

## 13.1 Waste treatment methods

<b>Waste Disposal:</b>	Dispose of this material and its container to hazardous or special waste collection point. Disposal must be done according to official regulations. Do not empty into drain or the aquatic environment.
<b>Ecology - waste materials:</b>	Dispose of all waste in accordance with federal, state, and local regulations.

## SECTION 14: TRANSPORTATION INFORMATION

## U.S. DOT (Land)

## Department of Transportation

Proper Shipping Name:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (CONTAINS DIETHYLENETRIAMINE)
Hazard Class:	8
UN / NA Number:	3267
Packing Group:	II
Labels Required:	Class 8 Corrosive
Marine Pollutant:	

## I.A.T.A / I.C.A.O. (AIR)

## International Air Transportation Authority / International Civil Air Organization

Proper Shipping Name:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (CONTAINS DIETHYLENETRIAMINE)
Hazard Class:	8
UN / NA Number:	3267
Packing Group:	II
Labels Required:	Class 8 Corrosive
Marine Pollutant:	NONE

## I.M.D.G. (Sea)

## International Maritime Organization

Proper Shipping Name:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (CONTAINS DIETHYLENETRIAMINE)
Hazard Class:	8
UN / NA Number:	3267
Packing Group:	II
Labels Required:	CLASS 8 CORROSIVE
Marine Pollutant:	NONE

ERG Info:	153
Reportable Quantity:	NONE
Placard:	AS REQUIRED

## 14.5 Environmental Hazards

This mixture is not considered environmentally hazardous according to the UN Model Regulations and is not considered a marine pollutant according to the IMDG Code.

## 14.6 Special Precautions

No other special precautions are required for transport of this mixture.

## SECTION 15: REGULATORY INFORMATION

## 15.1 Safety, Health and Environmental Regulations.

INGREDIENT	CAS NUMBER	CERCLA	SARA 313	SARA 302	REACH SVHC List	ROHS 2
------------	------------	--------	----------	----------	--------------------	--------

**NATIONAL INVENTORIES:**

AICS (Australia):	Components listed	ECN (Taiwan):	Status not determined
DSL (Canada):	Components listed	NDSL (Canada):	Not all components listed
ECL (Korea):	Status not determined	NZIoC (New Zealand):	Components listed
EINECS (Europe):	Status not determined	PICCS (Philippines):	Components listed
ENCS (Japan):	Status not determined	SWISS (Switzerland):	Status not determined
IECSC (China):	Components listed	TSCA (USA):	Components listed

WHMIS:

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this mixture by the supplier.

## SECTION 16 : OTHER INFORMATION

### 16.1 Method of Evaluation

Mixture hazard classification per UN GHS Purple Book, (EC) 1272/2008 Article 9(4), OSHA Haz-Com 2012.

### 16.3 Other Information

This information is provided in good faith from current, reliable sources and is believed to be correct. No warranty is expressed, implied, or given. The seller of this material assumes no responsibility for any damages resulting from contact with this material

### 16.4 Revision History

7/19/18: GHS Format