

CREATED 2013/03/05  
UPDATED 2014/05/26

# Safety Data Sheet

## 1. Identification of the substance/mixture and of the company

### 1.1 Product identifier

Anti-Toning Agent for Waterless Printing Ink AT-100

### 1.2 Other means of identification

Product No.(SDS No.) H3E-EHM00002-3-1

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

#### (1)Recommended use

Anti-Toning Agent for Waterless Printing Ink for Toray waterless plate.

#### (2)Restrictions on use

Don't use for a purpose other than recommended use.

### 1.4 Supplier's details

- (1)Company name Toray Industries, Inc.  
(2)Address Head Office 1-1, Nihonbashi-muromachi 2-chome, Chuo-ku, Tokyo 103-8666, JAPAN  
(3)Department Graphic Systems Department.  
(4)Person in charge General Manager of Graphic Systems Department.  
(5)Telephone number +81(3)-3245-4516  
(6)FAX number +81(3)-3245-4917  
(7)E-mail Address/URL <http://www.waterless-print.com>  
1.5 Emergency phone number +81(3)-3245-4516

## 2. Hazards Identification

### 2.1 GHS Classification

This product is classified under hazardous according to JIS Z 7252: 2009 (Labeling of chemicals based on GHS).

#### Health Hazards

- Skin corrosion/irritation Category 2  
Serious eye damage/eye irritation Category 1  
Skin sensitizer Category 1

#### Environmental Hazards

- Long-term hazards to the aquatic environment Category 2

### 2.2 GHS label elements

#### (1)Pictogram or Symbol



#### (2)Signal Word

DANGER

#### (3)Hazard statement

##### Health Hazards

- H315 Causes skin irritation  
H317 May cause allergic skin reaction  
H318 Causes serious eye damage

##### Environmental Hazards

- H411 Toxic to aquatic life with long lasting effects

## (4)Precautionary statement

## [Prevention]

P261 Avoid breathing dust/fume/gas/mist/vapor/spray.

P264 Wash hands thoroughly after handling.

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

P273 Avoid release to the environment.

P280 Wear (protective gloves/protective eye/face protection).

## [Response]

P310 Immediately call a POISON CENTER or doctor/physician.

P321 Specific treatment.

P391 Collect spillage.

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

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

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

P362+P364 Take off contaminated clothing and wash it before reuse.

## [Disposal]

P501 Dispose of contents/container in accordance with the international/national/regional/local laws or regulations.

## 2.3 Other hazards which do not result in classification

No information available.

## 2.4 Major symptom and envisioned emergencies

No information available.

**3. Composition/Information on Ingredients**

(1)Substance/Mixture	Mixture
(2)Product identity(chemical name, common name)	
Anti-Toning Agent for Waterless Printing Ink AT-100	
Synonym(s)	
Polyamideamine Solution	
(3)Composition/information on ingredients	
A.Information on ingredients	
Chemical identity of the substance	
Polyamideamine	
Content(%)	>=70
CAS No.	Registered
ENCS No.(Chemical Substances Control Law)	Registered
ISHL No.(Industrial Safety and Health Act)	Registered
TSCA	Registered
EC No.	Registered
Inventory of Existing Chemical Substances in China (IECSC)	Registered
Chemical identity of the substance	
Triethylenetetramine	
Content(%)	6
CAS No.	112-24-3
ENCS No.(Chemical Substances Control Law)	2-163
ISHL No.(Industrial Safety and Health Act)	2-163
PRTR No.	1-278
TSCA	Registered
EC No.	203-950-6

Inventory of Existing Chemical Substances Registered  
in China (IECSC)

#### 4. First-aid measures

##### 4.1 Description of first aid measures

###### (1) Inhalation

Call a POISON CENTER or doctor/physician if you feel unwell.

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

###### (2) Skin contact

Wash with plenty of water.

Take off immediately all contaminated clothing.

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

###### (3) Eye contact

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

Wash with copious amount of water immediately and consult a doctor.

Wash and remove all chemicals immediately if wet into the eyes to prevent from making an injury.

###### (4) Ingestion

Get medical advice/attention if you feel unwell.

Rinse mouth. Do NOT induce vomiting.

Give 200-300 ml of water.

##### 4.2 Most important symptoms and effects, both acute and delayed

No information available.

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

No information available.

#### 5. Firefighting measures

##### 5.1 Extinguishing media

###### (1) Suitable extinguishing media

Foam/Powder/Carbon dioxide (CO<sub>2</sub>)

###### (2) Unsuitable extinguishing media

No information available.

##### 5.2 Special hazards arising from the substance or mixture

No information available.

##### 5.3 Specific fire-fighting measures

Evacuate area.

##### 5.4 Special protective actions for fire-fighters

Fire-fighting personnel must wear protective equipment (Heat-resistant gloves/Fire-fighting clothing/Face shield/Self-contained breathing apparatus with full facepiece in positive pressure mode).

#### 6. Accidental release measures

##### 6.1 Personal precautions, protective equipment and emergency procedures

Ventilate indoor areas well until a work is completed.

Allow only authorized personnel in the area.

Wear appropriate personal protective equipment. (Refer to 8.3 "Individual protection measures")

##### 6.2 Environmental precautions

Do not discharge to sewers or into drain.

##### 6.3 Methods and materials for containment and cleaning up

In case of a small amount leakage, use adsorbent material (sawdust, soil, sand, waste cloth, or equivalent.) to absorb the liquid and wipe off remaining residue with waste, cloth, rag, etc.

Prevent outflow by surrounding with dirt or equivalent (incombustible material) and collect in an empty container with a shovel or suction machine that removes static electricity.

#### 6.4 Preventive measures against second disasters

Remove possible sources of ignition and provide exhaust ventilation.

### 7. Handling and storage

#### 7.1 Precautions for safe handling

##### (1) Technical measures

###### A. Exposure control of handler

Do not get in eyes, on skin, or on clothing.

Emergency shower and eyewash station shall be installed near worksites.

###### B. Prevention of fire/explosion

Use only non-sparking tools.

Take precautionary measures against static discharges.

Keep away from all possible sources of ignition such as pilot burner and electric sources (spark and nichrome wire) when handling or before removing vapour (bad smell).

##### (2) Local/general exhaust ventilation

Handle in facilities with local or general exhaust ventilation.

##### (3) Precautions

No special measures are required.

##### (4) Precautions for safe handling

Do not damage containers.

Avoid contact of containers with sharp edges.

Do not empty into drainage ditches.

##### (5) Proper hygiene measures

Wash hands before intermissions or and after work.

Gargle before intermissions or and after work.

Do not bring food and drink in work area.

Do not eat or smoke while working.

#### 7.2 Conditions for safe storage, including any incompatibilities

##### (1) Technical measure

No information available.

##### (2) Proper storage condition

Protect from sunlight.

Store in a well-ventilated place. Keep cool.

Store only in an original container.

Keep sealed.

##### (3) Storage condition to avoid

Keep fire away.

Do not store in contact with acidic substances.

Avoid storing in contact with oxidant and strong oxidizing substances.

##### (4) Safe container materials

No special measures are required.

### 8. Exposure Control/Personal Protection

#### 8.1 Control parameters

##### (1) Administrative levels (Industrial Safety and Health Act)

Administrative levels are not established.

##### (2) Occupational exposure limits

Occupational exposure limits are not established.

##### (3) DNEL (Derived No Effect Level)

No information available.

##### (4) PNEC (Predicted No Effect Concentration)

No information available.

## 8.2 Exposure controls

Do not handle in workplace without appropriate ventilation such as general or local exhaust ventilation etc.  
Emergency shower and eyewash station shall be installed near worksites.

## 8.3 Individual protection measures

### (1)Respiratory protection

No special measures are required.

### (2)Hand protection

Wear protective gloves.(recommended material:Impermeability object such as Neoprene)

### (3)Eye/face protection

Wear protective glasses or safety goggles.

### (4)Skin and body protection

If necessary, wear impervious protective equipment such as neoprene apron, boots, protective clothing etc.

## 9. Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

#### (1)Appearance

##### A.Physical state

Liquid

##### B.Color

Amber

#### (2)Odour

Ammonia odor

#### (3)Odour threshold

No information available.

#### (4)pH

Not applicable.

#### (5)Melting point/freezing point

<0 degrees C

#### (6)Initial boiling point and boiling range

>200 degrees C

#### (7)Flash point

215°C

#### (8)Evaporation rate

No information available.

#### (9)Flammability (solid, gas)

Not applicable.

#### (10)Upper/lower flammability or explosive limits

No information available.

#### (11)Vapour pressure

<1Pa (20 degrees C)

#### (12)Vapour density

No information available.

#### (13)Specific gravity (Relative density)

0.98 (25 degrees C)

#### (14)Solubility

insoluble to water (at 20 degrees C)

soluble to organic solvents

#### (15) Partition coefficient: n-octanol/water

No information available.

#### (16)Auto-ignition temperature

Nothing.

(17)Decomposition temperature

No information available.

(18)Viscosity

700-900mPa\*s(75 degrees C), 30000mPa\*s(25 degrees C)

(19)Explosive properties

No information available.

(20)Oxidising properties

No information available.

9.2 Other information

No information available.

## 10. Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

This product is considered stable under ordinary storage and handling condition.

10.3 Possibility of hazardous reactions

Danger of reaction with acids and strong oxidant.

10.4 Conditions to avoid

Don't contact with incompatible material.

10.5 Incompatible materials

Acidic material

Strong oxidant

10.6 Hazardous decomposition products

Nothing in particular.

## 11. Toxicological Information

(1)Acute toxicity

[Oral] Product (Not classified)

LD50>2000mg/kg

[Dermal] Classification is not possible due to insufficient information.

[Inhalation] Classification is not possible due to insufficient information.

(2)Skin corrosion/irritation

Product (category 2)

(3)Sensitization, respiratory/skin

[Respiratory sensitisation]

Classification is not possible due to insufficient information.

[Skin sensitisation] Product (category 1)

(4)Serious eye damage/eye irritation

Product (category 1)

(5)Germ cell mutagenicity

Classification is not possible due to insufficient information.

(6)Carcinogenicity

Classification is not possible due to insufficient information.

(7)Reproductive toxicity

Classification is not possible due to insufficient information.

(8)Specific target organ toxicity/single exposure

Classification is not possible due to insufficient information.

(9)Specific target organ toxicity/repeated exposure

Classification is not possible due to insufficient information.

(10)Aspiration hazard

Classification is not possible due to insufficient information.

(11)Other hazard(s)

No information available.

## 12. Ecological Information

### 12.1 Ecotoxicity

(1)Acute(short-term)

Classification is not possible due to insufficient information.

(2)Chronic(long-term)

Product (category 2)

### 12.2 Persistence and degradability

No information available.

### 12.3 Bioaccumulative potential

No information available.

### 12.4 Mobility in soil

No information available.

### 12.5 Adverse effect to the ozone layer

No information available.

### 12.6 Other adverse effect(s)

No information available.

## 13. Disposal considerations

### 13.1 Waste treatment methods

Do not dump into sewers, on the ground or into any body of water.

Do not discharging into drains or the environment.

Dispose to an authorized waste collection point.

## 14. Transport information

14.1 UN number 3082

14.2 UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3 Transport hazard 9

class(es)

14.4 Packing group III

14.5 Environmental hazards This material is corresponded to marine pollutant.

14.6 Special precautions for user

No information available.

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

No information available.

14.8 The Laws and Regulations for transportation in Japan

Land transportation Comply with the provisions of Fire Service Act.

Marine transportation Comply with the provisions of Ship Safety Act.

Air transportation Comply with the provisions of Civil Aeronautics Act.

14.9 Specific safety measures and conditions on transport :

Before transportation confirm that there is no damage or corrosion or leakage of the container, load the product as not to drop or fall or destroy, and ensure prevention of the collapse of cargo.

Avoid fire, heat and direct sunlight.

14.10 ERG Guide No.

No information available.

## 15. Regulatory information

Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.

## 16. Other Information/References

Date of issue/Date of revision

Date of issue 2014/05/26

Reference

This SDS confirm to the JIS standard and Japan SDS making guideline.

Disclaimer

This SDS is made based on information and data currently available to us. It may be revised and updated when new information becomes available to us.

Although certain danger and hazard are described herein, we can not guarantee that there is no other danger or hazard in or related to the materials. All materials may have unknown danger or hazard and should be used and handled in caution. Subject to user's ordinary use and handling, all remarks and precautions herein are described and it is user's responsibility to implement appropriate safety measures in case of their particular uses. Users should confirm and evaluate the safety of all materials, including its combination with other materials or parts and the suitability of the materials for their purposes on their own responsibilities.

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