

# Adhesion Promoter

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Product name : Adhesion Promoter  
Product code : 1534

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Polymeric Imaging  
117 East 14th Avenue  
North Kansas City, MO 64116 - United States  
T 816-221-5567

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC: 800-424-9300

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

Classification (GHS-US)

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07



GHS09



GHS05

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H302-Harmful if swallowed  
H318-Causes serious eye damage  
H401-Toxic to aquatic life  
H411-Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) : P262-Do not get in eyes, on skin, or on clothing  
P-270-Do not eat, drink or smoke when using this product  
P273-Avoid release to the environment  
P303-If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
P305-If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P306-If on clothing: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes  
Dispose of contents to approved waste container

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

# Adhesion Promoter

## Safety Data Sheet

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Name	Product identifier	%	Classification (GHS-US)
tetrahydrofurfuryl alcohol, stabilized	(CAS No) 97-99-4	>=80	Acute Tox. 4 (Oral), H302

Full text of H-phrases: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Get medical advice/attention if you feel unwell. If you feel unwell, seek medical advice. Never give anything by mouth to an unconscious person.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Wash skin with plenty of water.
- First-aid measures after eye contact : Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Rinse mouth.

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

- Symptoms/injuries : No data available.
- Symptoms/injuries after inhalation : Central nervous system depression, Nausea, Shortness of breath, Respiratory difficulties.
- Symptoms/injuries after skin contact : Burns. Causes skin irritation, Dry skin, Cracking of the skin, Irritation, Repeated exposure may cause skin dryness or cracking.
- Symptoms/injuries after eye contact : Causes eye irritation. May cause severe irritation, Redness of the eye tissue.
- Symptoms/injuries after ingestion : Burns.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Water spray, Dry powder, Foam, Carbon dioxide.

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

- Fire hazard : Combustible liquid.
- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

#### 5.3. Advice for firefighters

- Firefighting instructions : Avoid (reject) fire-fighting water to enter environment. Evacuate area. Exercise caution when fighting any chemical fire.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment, Self-contained breathing apparatus, Complete protective clothing.
- Special protective equipment for fire fighters : EN 13911 - protective clothing for firefighters.

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area.

##### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8 Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material.
- Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 8 : Exposure-controls/personal protection".

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

# Adhesion Promoter

## Safety Data Sheet

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Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store in a well-ventilated place. Keep cool.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Adhesion Promoter		
DNEL	DNEL	~

### 8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Hand protection : Protective gloves.  
Eye protection : Safety glasses.  
Skin and body protection : Wear suitable protective clothing.  
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.  
Environmental exposure controls : Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Color : Clear to light yellow  
Odor : Fruity odor  
Odor threshold : No data available  
pH : No data available  
Melting point : Not applicable  
Freezing point : No data available  
Boiling point : No data available  
Flash point : No data available  
Relative evaporation rate (butyl acetate=1) : No data available  
Flammability (solid, gas) : No data available  
Explosion limits : No data available  
Explosive properties : No data available  
Oxidizing properties : No data available  
Vapor pressure : No data available  
Relative density : No data available  
Relative vapor density at 20 °C : No data available  
Solubility : Soluble in water  
Log Pow : No data available  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Viscosity : No data available  
Viscosity, kinematic : No data available  
Viscosity, dynamic : No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

# Adhesion Promoter

## Safety Data Sheet

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### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

tetrahydrofurfuryl alcohol, stabilized (97-99-4)	
LD50 oral rat	1600 mg/kg (Rat)
ATE US (oral)	1600.000 mg/kg body weight

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : Central nervous system depression. Nausea. Shortness of breath. Respiratory difficulties.

Symptoms/injuries after skin contact : Burns. Causes skin irritation. Dry skin. Cracking of the skin. Irritation. Repeated exposure may cause skin dryness or cracking.

Symptoms/injuries after eye contact : Causes eye irritation. May cause severe irritation. Redness of the eye tissue.

Symptoms/injuries after ingestion : Burns.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

tetrahydrofurfuryl alcohol, stabilized (97-99-4)	
LC50 fish 1	3400 mg/l (LC50; 48 h)

### 12.2. Persistence and degradability

tetrahydrofurfuryl alcohol, stabilized (97-99-4)	
Persistence and degradability	Biodegradable in water.
Chemical oxygen demand (COD)	0.04 g O <sub>2</sub> /g substance
ThOD	2.04 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

tetrahydrofurfuryl alcohol, stabilized (97-99-4)	
Log Pow	< 3
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

### 12.4. Mobility in soil

# Adhesion Promoter

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### tetrahydrofurfuryl alcohol, stabilized (97-99-4)

Surface tension	0.037 N/m
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#### 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

No additional information available

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN3082 Environmentally hazardous substances, liquid, n.o.s. (contains: N-(2-Aminoethyl)-1,2-Ethanediamine, polymer with Aziridine), 9, III

UN-No.(DOT) : UN3082

Proper Shipping Name (DOT) : Environmentally hazardous substances, liquid, n.o.s.  
contains: N-(2-Aminoethyl)-1,2-Ethanediamine, polymer with Aziridine

Hazard Classes (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140

Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



Packing group (DOT) : III - Minor Danger

Dangerous for the environment : Yes

Marine pollutant : Yes



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

DOT Symbols : G - Identifies PSN requiring a technical name

# Adhesion Promoter

## Safety Data Sheet

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DOT Special Provisions (49 CFR 172.102)	: 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies. 146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination. 173 - An appropriate generic entry may be used for this material. 335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s.," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 155
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: No limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: No limit
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Other information	: No supplementary information available.

### TDG

No additional information available

### Transport by sea

UN-No. (IMDG)	: 3082
Proper Shipping Name (IMDG)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Class (IMDG)	: 9 - Miscellaneous dangerous compounds
Packing group (IMDG)	: III - substances presenting low danger

### Air transport

UN-No.(IATA)	: 3082
Proper Shipping Name (IATA)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Class (IATA)	: 9 - Miscellaneous Dangerous Goods
Packing group (IATA)	: III - Minor Danger

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### tetrahydrofurfuryl alcohol, stabilized (97-99-4)

Components are listed or excluded from listing on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

# Adhesion Promoter

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### National regulations

No additional information available

### 15.3. US State regulations

No additional information available

## SECTION 16: Other information

Other information

: Polymeric makes no warranty, express or implied, as to the accuracy or reliability of information contained herein, except that such information is, to the best of Polymeric's knowledge and belief, accurate as of the date indicated on this document. Final determination of suitability of material is the sole responsibility of the user. All the materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Polymeric urges the customer receiving this safety data sheet to study it carefully to become aware of the hazards, if any, in the product. In the interest of safety, the customer should (1) notify your employees, agents and contractors of the information included in this SDS and (2) furnish a copy to each of your employees, customers and agents.

Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
H318	Causes serious eye damage
H227	Combustible liquid
H302	Harmful if swallowed
H401	Toxic to aquatic life
H411	Very toxic to aquatic life with long lasting effects

SDS US (GHS HazCom 2012)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*