



Allied Pressroom Products  
Chemicals for the International Printing Industry

## SAFETY DATA SHEET HYDRO PLUS (USA)

### 1. Identification

#### Product identifier

**Product name** HYDRO PLUS (USA)

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

**Application** For use as a fountain solution additive in the lithographic printing industry. Fountain solution additive.

**Uses advised against** No specific uses advised against are identified.

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

**Supplier** ALLIED PRESSROOM PRODUCTS  
4814 Persimmon Ct.  
Monroe  
North Carolina  
28110  
USA  
TELEPHONE: +1 800-327-8487 (09:00-17:00 EST)  
FAX: +1 704-635-7249  
info@alliedchem.com

#### Emergency telephone number

**Emergency telephone** Allied Pressroom Products +1 800-327-8487 (09:00-17:00 EST) 24 HR. EMERGENCY TELEPHONE 800-424-9300 CHEMTREC

**National emergency telephone number** 911

### 2. Hazard(s) identification

#### Classification of the substance or mixture

**Physical hazards** Flam. Liq. 4 - H227

**Health hazards** Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 STOT RE 2 - H373 Asp. Tox. 1 - H304

**Environmental hazards** Not Classified

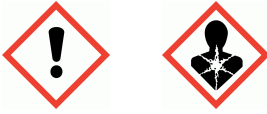
**Human health** Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis. Harmful if swallowed. The product is irritating to eyes and skin. May cause damage to organs through prolonged or repeated exposure if swallowed. May be harmful in contact with skin. The product contains a small amount of sensitizing substance. May cause skin sensitization or allergic reactions in sensitive individuals.

**Physicochemical** Heating may generate flammable vapors. Vapors may form explosive mixtures with air.

#### Label elements

## HYDRO PLUS (USA)

### Hazard symbols



### Signal word

Danger

### Hazard statements

H227 Combustible liquid.  
 H302 Harmful if swallowed.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H373 May cause damage to organs through prolonged or repeated exposure if swallowed.  
 H304 May be fatal if swallowed and enters airways.

### Precautionary statements

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.  
 P260 Do not breathe vapor/ spray.  
 P264 Wash contaminated skin thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P301+P310 If swallowed: Immediately call a poison center/ doctor.  
 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.  
 P314 Get medical advice/ attention if you feel unwell.  
 P330 Rinse mouth.  
 P331 Do NOT induce vomiting.  
 P332+P313 If skin irritation occurs: Get medical advice/ attention.  
 P337+P313 If eye irritation persists: Get medical advice/ attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.  
 P403+P235 Store in a well-ventilated place. Keep cool.  
 P405 Store locked up.  
 P501 Dispose of contents/ container in accordance with national regulations.

### Contains

2-BUTOXYETHANOL, ETHANEDIOL

### Other hazards

This product does not contain any substances classified as PBT or vPvB.

### 3. Composition/information on ingredients

#### Mixtures

2-BUTOXYETHANOL	50-60%
CAS number: 111-76-2	
<b>Classification</b> Flam. Liq. 4 - H227 Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Asp. Tox. 1 - H304	

## HYDRO PLUS (USA)

<b>ETHANEDIOL</b>	<b>20-30%</b>
CAS number: 107-21-1	
<b>Classification</b>	
Acute Tox. 4 - H302	
STOT RE 2 - H373	
<b>2,4,7,9-tetramethyldec-5-yne-4,7-diol</b>	<b>&lt;1%</b>
CAS number: 126-86-3	
<b>Classification</b>	
Eye Dam. 1 - H318	
Skin Sens. 1B - H317	

The full text for all hazard statements is displayed in Section 16.

### 4. First-aid measures

#### Description of first aid measures

<b>Inhalation</b>	Get medical attention if any discomfort continues. Move affected person to fresh air at once.
<b>Ingestion</b>	Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention if any discomfort continues.
<b>Skin Contact</b>	Remove affected person from source of contamination. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

<b>Inhalation</b>	May cause nausea, headache, dizziness and intoxication. Vapor may affect central nervous system.
<b>Ingestion</b>	Pneumonia may be the result if vomited material containing solvents reaches the lungs. Harmful if swallowed. Diarrhea. May cause stomach pain or vomiting. May cause unconsciousness, blindness and possibly death. May cause liver and/or renal damage. Brain damage.
<b>Skin contact</b>	Allergic rash. Irritating. May be harmful in contact with skin.
<b>Eye contact</b>	Irritating to eyes.

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

<b>Notes for the doctor</b>	No specific recommendations.
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### 5. Fire-fighting measures

#### Extinguishing media

<b>Suitable extinguishing media</b>	Extinguish with the following media: Carbon dioxide (CO <sub>2</sub> ). Alcohol-resistant foam. Dry chemicals, sand, dolomite etc.
<b>Unsuitable extinguishing media</b>	Do not use water, if avoidable.

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

## HYDRO PLUS (USA)

<b>Specific hazards</b>	No unusual fire or explosion hazards noted.
<b>Hazardous combustion products</b>	Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Toxic gases or vapors.
<b>Advice for firefighters</b>	
<b>Protective actions during firefighting</b>	Avoid breathing fire gases or vapors.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

### 6. Accidental release measures

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

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet.

#### Environmental precautions

**Environmental precautions** Do not discharge into drains or watercourses or onto the ground.

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

**Methods for cleaning up** Absorb in vermiculite, dry sand or earth and place into containers. Avoid the spillage or runoff entering drains, sewers or watercourses. Avoid inhalation of vapors/spray and contact with skin and eyes.

**Reference to other sections** For waste disposal, see Section 13.

### 7. Handling and storage

#### Precautions for safe handling

**Usage precautions** Avoid spilling. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapors and spray/mists.

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

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place.

#### Specific end uses(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.

### 8. Exposure controls/Personal protection

#### Control parameters

#### Occupational exposure limits

##### **2-BUTOXYETHANOL**

Long-term exposure limit (8-hour TWA): OSHA 50 ppm 240 mg/m<sup>3</sup>

Sk

Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 97 mg/m<sup>3</sup>

A3

##### **ETHANEDIOL**

Ceiling exposure limit: ACGIH 100 mg/m<sup>3</sup>

A4

OSHA = Occupational Safety and Health Administration.

ACGIH = American Conference of Governmental Industrial Hygienists.

Sk = Danger of cutaneous absorption.

A4 = Not Classifiable as a Human Carcinogen.

A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.

## HYDRO PLUS (USA)

### 2-BUTOXYETHANOL (CAS: 111-76-2)

**Immediate danger to life and health** 700 ppm

#### Exposure controls

##### Protective equipment



##### Appropriate engineering controls

As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapor or mist.

##### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles.

##### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Rubber or plastic.

##### Other skin and body protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor contact.

##### Hygiene measures

Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke. Do not smoke in work area.

##### Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Wear a full facepiece respirator fitted with the following cartridge: Organic vapor + dust and mist filter.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance	Clear liquid.
Color	Water-white.
Odor	Glycol ether.
Odor threshold	No information available.
pH	Not applicable.
Melting point	Not applicable.
Initial boiling point and range	>100°C @ 760 mm Hg >212°F @ 760 mm Hg
Flash point	> 180°F Tag closed cup.
Evaporation rate	< 1 (butyl acetate = 1)
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	<3 mm Hg @ 20°C
Vapor density	>1
Relative density	~ 0.97 @ 20°C

## HYDRO PLUS (USA)

<b>Bulk density</b>	Not applicable.
<b>Solubility(ies)</b>	Completely soluble in water.
<b>Partition coefficient</b>	No information available.
<b>Auto-ignition temperature</b>	No information available.
<b>Decomposition Temperature</b>	No information available.
<b>Viscosity</b>	No information available.
<b>Oxidizing properties</b>	Not available.
<b>Comments</b>	Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.
<b>Volatile organic compound</b>	This product contains a maximum VOC content of 731 g/l. This product contains a maximum VOC content of 6.1 lb per Gallon.

### 10. Stability and reactivity

<b>Reactivity</b>	There are no known reactivity hazards associated with this product.
<b>Stability</b>	Stable at normal ambient temperatures.
<b>Possibility of hazardous reactions</b>	Will not polymerize.
<b>Conditions to avoid</b>	Avoid excessive heat for prolonged periods of time.
<b>Materials to avoid</b>	Strong acids. Strong alkalis. Strong oxidizing agents. Strong reducing agents.
<b>Hazardous decomposition products</b>	Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). Hydrocarbons.

### 11. Toxicological information

#### Information on toxicological effects

##### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Harmful if swallowed.

**ATE oral (mg/kg)** 858.12

##### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** May be harmful in contact with skin.

##### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

##### Skin corrosion/irritation

**Human skin model test** Irritating.

##### Serious eye damage/irritation

**Serious eye damage/irritation** Causes eye irritation.

##### Respiratory sensitization

**Respiratory sensitization** Based on available data the classification criteria are not met.

##### Skin sensitization

## HYDRO PLUS (USA)

<b>Skin sensitization</b>	The product contains a small amount of sensitizing substance. May cause skin sensitization or allergic reactions in sensitive individuals.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Based on available data the classification criteria are not met.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Based on available data the classification criteria are not met.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	May cause damage to organs through prolonged or repeated exposure if swallowed.
<b>Target organs</b>	Kidneys Liver
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
<b><u>Inhalation</u></b>	
<b>Inhalation</b>	Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death.
<b><u>Ingestion</u></b>	
<b>Ingestion</b>	Pneumonia may be the result if vomited material containing solvents reaches the lungs. Harmful if swallowed. May cause discomfort if swallowed. Nausea, vomiting. Diarrhea. May cause nausea, headache, dizziness and intoxication. May cause liver and/or renal damage. Brain damage. May cause unconsciousness, blindness and possibly death.
<b><u>Skin Contact</u></b>	
<b>Skin Contact</b>	The product contains a small amount of sensitizing substance. May cause sensitisation by skin contact. Irritating. Contains components which may penetrate the skin. May be harmful in contact with skin.
<b><u>Eye contact</u></b>	
<b>Eye contact</b>	Irritating.
<b><u>Route of exposure</u></b>	
<b>Route of exposure</b>	Skin and/or eye contact Skin absorption Inhalation Ingestion
<b><u>Target Organs</u></b>	
<b>Target Organs</b>	Kidneys Heart & cardiovascular system Brain Central nervous system Eyes Skin Respiratory system, lungs

### 12. Ecological information

<b>Ecotoxicity</b>	The product is not expected to be toxic to aquatic organisms. However, large or frequent spills may have hazardous effects on the environment.
<b><u>Acute aquatic toxicity</u></b>	
<b>Acute toxicity - fish</b>	Not known.
<b>Acute toxicity - aquatic invertebrates</b>	Not known.
<b>Acute toxicity - aquatic plants</b>	Not known.
<b><u>Persistence and degradability</u></b>	
<b>Persistence and degradability</b>	There are no data on the degradability of this product.
<b><u>Bioaccumulative potential</u></b>	

## HYDRO PLUS (USA)

**Bio-Accumulative Potential** No data available on bioaccumulation.

**Partition coefficient** No information available.

**Mobility in soil**

**Mobility** The product is soluble in water.

**Other adverse effects**

**Other adverse effects** Not known.

### 13. Disposal considerations

**Waste treatment methods**

**General information** When handling waste, the safety precautions applying to handling of the product should be considered.

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

### 14. Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

**UN Number**

**UN No. (International)** Not applicable.

**UN proper shipping name**

**Proper shipping name (International)** Not applicable.

**Transport hazard class(es)**

**Transport Labels (International)** No transport warning sign required.

**Packing group**

**Packing group (International)** Not applicable.

**Environmental hazards**

**Environmentally Hazardous Substance**  
No.

**Special precautions for user**

Not applicable.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

### 15. Regulatory information

**National regulations** Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

**US Federal Regulations**

**SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**  
Not listed.



## HYDRO PLUS (USA)

### **CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)**

*ETHANEDIOL*

Final CERCLA RQ: 5000(2270) pounds (Kilograms)

20-30%

### **SARA Extremely Hazardous Substances EPCRA Reportable Quantities**

Not listed.

### **SARA 313 Emission Reporting**

*2-BUTOXYETHANOL*

50-60%

*ETHANEDIOL*

20-30%

### **CAA Accidental Release Prevention**

Not listed.

### **FDA - Essential Chemical**

Not listed.

### **FDA - Precursor Chemical**

Not listed.

### **OSHA Highly Hazardous Chemicals**

Not listed.

### **US State Regulations**

#### **California Proposition 65 Carcinogens and Reproductive Toxins**

Yes

*ETHANEDIOL*

20-30%

#### **California Air Toxics "Hot Spots" (A-I)**

*2-BUTOXYETHANOL*

50-60%

*ETHANEDIOL*

20-30%

#### **California Air Toxics "Hot Spots" (A-II)**

Not listed.

#### **California Directors List of Hazardous Substances**

*2-BUTOXYETHANOL*

50-60%

*ETHANEDIOL*

20-30%

#### **Massachusetts "Right To Know" List**

*2-BUTOXYETHANOL*

50-60%

*ETHANEDIOL*

20-30%

## HYDRO PLUS (USA)

### Rhode Island "Right To Know" List

*2-BUTOXYETHANOL*

50-60%

*ETHANEDIOL*

20-30%

### Minnesota "Right To Know" List

*2-BUTOXYETHANOL*

50-60%

*ETHANEDIOL*

20-30%

### New Jersey "Right To Know" List

*2-BUTOXYETHANOL*

50-60%

*ETHANEDIOL*

20-30%

### Pennsylvania "Right To Know" List

*2-BUTOXYETHANOL*

50-60%

*ETHANEDIOL*

20-30%

### Inventories

#### Canada - DSL/NDSL

All the ingredients are listed or exempt.  
DSL

#### US - TSCA

All the ingredients are listed or exempt.

#### US - TSCA 12(b) Export Notification

Not listed.

### 16. Other information

## HYDRO PLUS (USA)

### Abbreviations and acronyms used in the safety data sheet

CAS: Chemical abstracts service.  
 PBT: Persistent, bioaccumulative and toxic substance.  
 vPvB: Very persistent and very bioaccumulative.

ATE: Acute toxicity estimate.  
 LC<sub>50</sub>: Lethal concentration to 50 % of a test population.  
 LD<sub>50</sub>: Lethal dose to 50% of a test population (median lethal dose).  
 EC<sub>50</sub>: 50% of maximal effective concentration.  
 IMDG: International maritime dangerous goods.  
 IATA: International air transport association.  
 TDG: The transport of dangerous goods act  
 UN: United Nations.  
 MARPOL 73/78: International convention for the prevention of pollution from ships, 1973 as modified by the protocol of 1978.  
 IBC: International code for the construction and equipment of ships carrying dangerous chemicals in bulk (International bulk chemical code).  
 GHS: Globally harmonized system.

### Classification abbreviations and acronyms

Asp. Tox. = Aspiration hazard  
 Eye Irrit. = Eye irritation  
 Flam. Liq. = Flammable liquid  
 Skin Irrit. = Skin irritation  
 STOT RE = Specific target organ toxicity-repeated exposure  
 Eye Dam. = Serious eye damage  
 Skin Sens. = Skin sensitisation  
 Aquatic Acute = Hazardous to the aquatic environment (acute)  
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

### Key literature references and sources for data

Material Safety Data Sheet, Misc. manufacturers.

### Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

### Issued by

J Waterfield

### Revision date

8/22/2019

### Revision

4.0

### Supersedes date

6/20/2018

### SDS No.

21241

### Hazard statements in full

H227 Combustible liquid.  
 H302 Harmful if swallowed.  
 H304 May be fatal if swallowed and enters airways.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H373 May cause damage to organs through prolonged or repeated exposure if swallowed.  
 H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure if swallowed.

### ACA HMIS Health rating.

Moderate hazard. (2)

### ACA HMIS Flammability rating.

Burns only if heated moderately. (2)

## HYDRO PLUS (USA)

**ACA HMIS Physical hazard rating.** Normally stable. (0)

**ACA HMIS Personal protection rating.** C

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.