

# SAFETY DATA SHEET

Issuing Date: 30-Jun-2015

Version 1

## Dot Works Ready to Use Developer

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Dot Works Ready to Use Developer  
**Product code** 28037-40  
**Product Use** Developer for Graphic Arts Industry.  
**Supplier Address**  
 Recognition Systems, Inc.  
 30 Harbor Park Drive  
 Port Washington, NY 11050  
**Company Phone Number** 516-625-5000  
**Emergency Telephone** Transport-CHEMTREC Inside NA: 800-424-9300  
 Transport CHEMTREC Outside NA: 703-527-3887

### 2. HAZARDS IDENTIFICATION

#### Classification

Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Germ Cell Mutagenicity	Category 2
Carcinogenicity	Category 2
Reproductive Toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2

#### GHS Label elements, including precautionary statements

Warning

#### Hazard Statements

Causes serious eye irritation  
 May cause an allergic skin reaction  
 Suspected of causing genetic defects  
 Suspected of causing cancer  
 Suspected of damaging fertility or the unborn child  
 May cause damage to organs through prolonged or repeated exposure



### Precautionary Statements

#### **Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Wash face, hands and any exposed skin thoroughly after handling  
 Contaminated work clothing should not be allowed out of the workplace  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Wear protective gloves/protective clothing/eye protection/face protection

#### **Response**

If exposed or concerned: Get medical advice/attention  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention  
 IF ON SKIN: Wash with plenty of soap and water  
 If skin irritation or rash occurs: Get medical advice/attention  
 Wash contaminated clothing before reuse

#### **Storage**

Store locked up

#### **Disposal**

Dispose of contents/container to an approved waste disposal plant

#### **Hazards not otherwise classified (HNOC)**

Not classified

#### **Other hazards**

Causes mild skin irritation  
 Toxic to aquatic life with long lasting effects  
 Toxic to aquatic life

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
DIETHYLENE GLYCOL	111-46-6	1-5%
HYDROQUINONE	123-31-9	1-5%
POTASSIUM CARBONATE	584-08-7	0.5-1.5%
DTPA PENTASODIUM SALT	140-01-2	0.1-1%

### 4. FIRST AID MEASURES

#### First aid measures for different exposure routes

##### **General advice**

If symptoms persist, call a physician.

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<b>Eye contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Skin contact</b>	IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, call a physician.
<b>Ingestion</b>	If swallowed, do not induce vomiting - seek medical advice.

**Most important symptoms/effects, acute and delayed**

May cause redness, itching, and pain. May cause allergic skin reaction.

**Indication of immediate medical attention and special treatment needed, if necessary**

Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

None known.

**Specific hazards arising from the chemical**

May cause sensitization by skin contact.

**Explosion Data**

**Sensitivity to Mechanical Impact** none

**Sensitivity to Static Discharge** none

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

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

Use personal protective equipment. Avoid contact with skin, eyes or clothing. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Environmental precautions**

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent product from entering drains.

**Methods and materials for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Use personal protective equipment. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Ensure adequate ventilation. Avoid exposure during pregnancy.

### Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs
DIETHYLENE GLYCOL				10 mg/m <sup>3</sup> TWA
HYDROQUINONE	TWA: 1 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> (vacated) TWA: 2 mg/m <sup>3</sup>	IDLH: 50 mg/m <sup>3</sup> Ceiling: 2 mg/m <sup>3</sup> 15 min	

### Exposure controls

**Engineering Measures** Ventilation systems

### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** If splashes are likely to occur, wear: Safety glasses with side-shields.

**Skin and body protection** Wear protective gloves/clothing.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** When using do not eat, drink or smoke. Take off contaminated clothing and wash before reuse. Regular cleaning of equipment, work area and clothing is recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Clear, pale yellow	<b>Odor</b>	none
<b>Odor Threshold</b>	Not available	<b>Physical State @20°C</b>	Aqueous Solution
<b>pH</b>	10.3	<b>Molecular Weight</b>	Not available
<b>Specific Gravity</b>	1.09	<b>Autoignition temperature</b>	Not available
<b>Flash point</b>	> 201 °F / > 94 °C	<b>Boiling point / boiling range</b>	> 212 °F / > 100 °C
<b>Decomposition temperature</b>	Not available	<b>Freezing Point</b>	Not available
<b>Melting point / melting range</b>	Not available		
<b>Flammability Limit in Air</b>	Not available		
<b>Oxidizing Properties</b>	Not available	<b>Explosive Property Details</b>	Not available
<b>Solubility</b>	completely soluble	<b>Partition coefficient</b>	Not available
<b>Evaporation rate</b>	Not available	<b>Vapor Pressure</b>	Not available
<b>Vapor density</b>	Not available	<b>Density</b>	Not available

<b>VOC (lb/gal)</b>	Not available	<b>VOC (g/l)</b>	Not available
<b>Dynamic viscosity</b>	Not available		

## 10. STABILITY AND REACTIVITY

### Reactivity

Stable under recommended storage conditions

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

None under normal processing.

### Conditions to Avoid

Excessive heat. Freezing.

### Incompatible Materials

Strong oxidizing agents. Strong acids. Strong bases.

### Hazardous Decomposition Products

None known.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

#### **Acute toxicity**

##### **Inhalation**

Non-irritating during normal use.

##### **Eyes**

Irritating to eyes. May cause redness and tearing.

##### **Skin**

May cause itching. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

##### **Ingestion**

Ingestion may cause stomach discomfort. May cause adverse kidney effects.

#### Component Information

Chemical Name	Oral LD50	Dermal LD50	LC50 (lethal concentration)
DIETHYLENE GLYCOL	= 12565 mg/kg ( Rat )	= 11890 mg/kg ( Rabbit )	
HYDROQUINONE	= 298 mg/kg ( Rat )	= 74800 mg/kg ( Rabbit )	
POTASSIUM CARBONATE	= 1870 mg/kg ( Rat )		

### Information on toxicological effects

No information available.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### **Irritation**

Irritating to eyes.

#### **Corrosivity**

No information available.

#### **Sensitization**

May cause sensitization by skin contact.

#### **Mutagenic Effects**

Contains a known or suspected mutagen.

**Reproductive Toxicity** Product is or contains a chemical which is a known or suspected reproductive hazard.  
**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.  
 Contains a known or suspected carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
HYDROQUINONE	A3	Group 3		

**ACGIH: (American Conference of Governmental Industrial Hygienists)**

A1 - Known Human Carcinogen  
 A2 - Suspected Human Carcinogen  
 A3 - Animal Carcinogen  
 A4 - Not Classifiable as a Human Carcinogen

**NTP: (National Toxicity Program)**

Known - Known Carcinogen  
 Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

**IARC: (International Agency for Research on Cancer)**

Group 1: Carcinogenic to humans  
 Group 2A: Probably carcinogenic to humans  
 Group 2B: Possibly carcinogenic to humans  
 Group 3: Not classifiable as to its carcinogenicity to humans

**OSHA: (Occupational Safety & Health Administration)**

X - Present

**STOT - single exposure** No information available.

**STOT - repeated exposure** Diethylene glycol: Can induce kidney, liver, central nervous system and gastrointestinal effects if swallowed.

**Target Organ Effects** Skin, Blood, Eyes, Reproductive system, Kidney.

**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document .

ATE<sub>mix</sub> (oral) 5491 mg/kg  
 ATE<sub>mix</sub> (dermal) 37383 mg/kg

ATE: Acute toxicity estimate

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Toxic to aquatic life with long lasting effects

Chemical Name	Algae toxicity	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
DIETHYLENE GLYCOL		Pimephales promelas: 75200 mg/L at 96 h		
HYDROQUINONE		Pimephales promelas: 0.1 - 0.18 mg/L at 96 h Pimephales promelas: 0.044 mg/L at 96 h		
DTPA PENTASODIUM SALT		Pimephales promelas: 300 mg/L at 96 h		

**Persistence and degradability**

No information available.

**Bioaccumulation**

Chemical Name	Octanol Water Partition Coefficient (log pow)
DIETHYLENE GLYCOL	-1.98
HYDROQUINONE	0.5
DTPA PENTASODIUM SALT	-3.05

**Mobility**

No information available.

**Other adverse effects**

No information available

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Methods**

Dispose of in accordance with local regulations.

**Contaminated packaging**

Do not re-use empty containers.

### 14. TRANSPORT INFORMATION

<b><u>DOT</u></b>	Not regulated
<b><u>TDG</u></b>	Not regulated
<b><u>MEX</u></b>	Not regulated
<b><u>ICAO</u></b>	Not regulated
<b><u>IATA</u></b>	Not regulated
<b><u>IMDG</u></b>	Not regulated
<b><u>ADR/RID</u></b>	Not regulated
<b><u>ADN</u></b>	Not regulated

### 15. REGULATORY INFORMATION

**International Inventories**

<b>TSCA</b>	Yes
<b>DSL/NDSL</b>	Yes
<b>PICCS</b>	Yes
<b>EINECS/ELINCS</b>	Yes
<b>ENCS</b>	No
<b>IECSC</b>	Yes
<b>KECL</b>	Yes
<b>AICS</b>	Yes

**\*Yes - All component(s) of this product are included or are exempt from listing on the inventory.**

**\*No - Indicates the component(s) of this product are either not listed or have not been determined to be listed on the inventory.**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

### U.S. Federal Regulations

#### TSCA Sections 4, 5 and 12(b)

This product does not contain any chemicals regulated by TSCA Sections 4, 5 or 12(b).

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS No	SARA 313 - Threshold Values %	Weight-%
HYDROQUINONE	123-31-9	1.0	1-5%

#### SARA 311/312 Hazard Categories

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	no
<b>Sudden Release of Pressure Hazard</b>	no
<b>Reactive Hazard</b>	no

#### Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
HYDROQUINONE	100	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

### U.S. State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals

### U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
DIETHYLENE GLYCOL			X		X
HYDROQUINONE	X	X	X	X	X

### International Regulations

#### Canada - NDSL

This product does not contain any NDSL chemicals.

#### Mexico - Grade

No information available

#### Mexico - Carcinogen Status and Exposure Limits



**Other Regulations**

No information available

**16. OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazard 2</b>	<b>Flammability 1</b>	<b>Instability 0</b>	<b>Physical and chemical hazards -</b>
<b>HMIS</b>	<b>Health Hazard 2*</b>	<b>Flammability 1</b>	<b>Physical Hazard 0</b>	<b>Personal protection C</b>

*\*Indicates a chronic health hazard.*

**Revision Date** 30-Jun-2015

**Revision Note** No information available

**Disclaimer** **The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.**

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