SAFETY DATA SHEET

Issuing Date: 11-Mar-2015 **Version** 1

Autex A2 Developer

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Autex A2 Developer

Product code 23212A

Product Use X-ray processing.

Manufactured by
FUJIFILM Hunt Chemicals U.S.A., Inc.
40 Boroline Road
Allendale, NJ 07401-0320

MSDS are available at the following website(s): http://www.fujifilmusa.com/msds

Company Phone Number U.S.A: 800-473-3854

Emergency Telephone Transport-CHEMTREC Inside NA: 800-424-9300
Transport CHEMTREC Outside NA: 703-527-3887
Transport-CANUTEC Inside Canada: 613-996-6666
Medical Emergency (24 hour): 877-935-7387

E-mail EHS@fujifilm.com

2. HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation	Category 1
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

Danger

Hazard Statements
Causes serious eye damage
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
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
Immediately call a POISON CENTER or doctor/physician
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
Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
HYDROQUINONE	123-31-9	5-10%
DIETHYLENE GLYCOL	111-46-6	1-5%
DTPA PENTASODIUM SALT	140-01-2	0.1-1%

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice — Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. May cause allergic skin reaction. If symptoms persist, call a physician.

Eye contact — Rinse immediately with plenty of water, also under the eyelids, for at least 30 minutes. Do not rub affected area. Keep eye wide open while rinsing. Seek immediate medical attention/advice.

Skin contact Wash off immediately with soap and plenty of water. In the case of skin irritation or allergic reactions see a physician.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Ingestion If swallowed, do not induce vomiting - seek medical advice.

Most important symptoms/effects, acute and delayed

Burning feeling and temporary redness. 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

None known.

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. Dam up. Cover liquid spill with sand, earth or other noncombustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. In case of insufficient ventilation, wear suitable respiratory equipment. 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
HYDROQUINONE	TWA: 1 mg/m³	TWA: 2 mg/m³ (vacated) TWA: 2 mg/m³	IDLH: 50 mg/m³ Ceiling: 2 mg/m³ 15 min	
DIETHYLENE GLYCOL				10 mg/m³ TWA

Exposure controls

Engineering Measures Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Tightly fitting safety goggles. Face-shield.

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

Appearance	Clear, pale yellow	**Odor**	none
Odor Threshold	Not available	**Physical State @20°C**	Aqueous Solution
pH	11.0		
Specific Gravity	1.25	**Molecular Weight**	Not available
Flash point	> 201 °F / > 94 °C	**Autoignition temperature**	Not available
Decomposition temperature	Not available	**Boiling point / boiling range**	> 212 °F / > 100 °C
Melting point / melting range	Not available	**Freezing Point**	Not available
Flammability Limit in Air	Not available		
Oxidizing Properties	Not available	**Explosive Property Details**	Not available
Solubility	Soluble in water	**Partition coefficient**	Not available
Evaporation rate	Not available	**Vapor Pressure**	Not available
Vapor density	Not available	**Density**	Not available
VOC (lb/gal)	0	**VOC (g/l)**	0
Dynamic viscosity	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	Inhalation of vapors in high concentration may cause irritation of respiratory system.
Eyes	Corrosive to the eyes and may cause irreversible eye damage.
Skin	May cause sensitization by skin contact. May cause itching. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Ingestion	Ingestion may cause stomach discomfort.

Component Information

Chemical Name	Oral LD50	Dermal LD50	LC50 (lethal concentration)
HYDROQUINONE	= 320 mg/kg (Rat)	> 900 mg/kg (Rat)	
DIETHYLENE GLYCOL	= 12565 mg/kg (Rat)	= 11890 mg/kg (Rabbit)	

Information on toxicological effects

No information available.

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

Irritation	Severe eye irritant.
Corrosivity	Corrosive to eyes.
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	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 Central nervous system (CNS), Eyes, Respiratory system, Skin, Kidney, Blood, Reproductive system.

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 .

ATEmix (oral) 3337 mg/kg
ATEmix (dermal) 13138 mg/kg

ATE: Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very 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
HYDROQUINONE		Pimephales promelas: 0.1 - 0.18 mg/L at 96 h Pimephales promelas: 0.044 mg/L at 96 h		
DIETHYLENE GLYCOL		Pimephales promelas: 75200 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	Octonol Water Partition Coefficient (log pow)
HYDROQUINONE	0.5
DIETHYLENE GLYCOL	-1.98
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

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
ICAO	Not regulated
IATA	Not regulated
IMDG	Not regulated
ADR/RID	Not regulated
ADN	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Yes
DSL/NDSL	Yes
PICCS	Yes
EINECS/ELINCS	Yes
ENCS	No
IECSC	Yes
KECL	Yes
AICS	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	5-10%

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	no
Sudden Release of Pressure Hazard	no
Reactive Hazard	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
HYDROQUINONE	X	X	X	X	X
DIETHYLENE GLYCOL			X		X

International Regulations

Canada - NDSL
This product does not contain any NDSL chemicals.

Mexico - Grade
Slight risk, Grade 1

Mexico - Carcinogen Status and Exposure Limits

Chemical Name	Carcinogen Status	Exposure Limits
HYDROQUINONE	A3	Mexico: TWA 2 mg/m^3

Other Regulations
No information available

16. OTHER INFORMATION

NFPA	**Health Hazard** 3	**Flammability** 1	**Instability** 0	**Physical and chemical hazards** -
HMIS	**Health Hazard** 3*	**Flammability** 1	**Physical Hazard** 0	**Personal protection** C

Prepared By FUJIFILM Environment, Health and Safety, phone: 800-473-3854

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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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