

# SAFETY DATA SHEET

Issuing Date: 26-Feb-2015

Version 1

## Autex KE Developer, Part C

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Autex KE Developer, Part C

**Product code** 23514C

**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**

Acute Toxicity - Oral	Category 4
Acute toxicity - Inhalation (Vapors)	Category 3
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1
Respiratory Sensitization	Category 1
Skin sensitization	Category 1

**GHS Label elements, including precautionary statements**

Danger

**Hazard Statements**

Harmful if swallowed  
Toxic if inhaled  
Causes severe skin burns and eye damage  
May cause allergy or asthma symptoms or breathing difficulties if inhaled  
May cause an allergic skin reaction



### Precautionary Statements

#### **Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Use only outdoors or in a well-ventilated area  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 In case of inadequate ventilation wear respiratory protection  
 Contaminated work clothing should not be allowed out of the workplace

#### **Response**

Immediately call a POISON CENTER or doctor/physician  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

#### **Storage**

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed

#### **Disposal**

Dispose of contents/container to an approved waste disposal plant

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

Not classified

#### **Other hazards**

Toxic to aquatic life with long lasting effects  
 Very toxic to aquatic life

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
GLUTARALDEHYDE	111-30-8	30-50%
ACETIC ACID	64-19-7	7-13%
INDAZOLE DERIVATIVE	5401-94-5	0.5-1.5%

### 4. FIRST AID MEASURES

#### First aid measures for different exposure routes

<b>General advice</b>	Immediate medical attention is required. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Take off contaminated clothing and shoes immediately.
<b>Eye contact</b>	In case of contact with substance, immediately flush eyes with running water for at least 30 minutes. Do not rub affected area. Keep eye wide open while rinsing. Call a physician immediately.
<b>Skin contact</b>	Wash off immediately with plenty of water for at least 30 minutes. Remove contaminated clothing and shoes. Call a physician immediately.
<b>Inhalation</b>	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Ingestion</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/ physician.

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

Causes severe skin burns and eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction. Burning feeling and temporary redness.

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

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

## **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**

The product causes burns of eyes, skin and mucous membranes. May cause sensitization by inhalation and skin contact. Thermal decomposition can lead to release of irritating gases and vapors.

**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. Do not get in eyes, on skin, or on 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. Cover liquid spill with sand, earth or other noncombustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. 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. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. In case of insufficient ventilation, wear suitable respiratory equipment.

### **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
GLUTARALDEHYDE	Ceiling: 0.05 ppm activated and inactivated	(vacated) Ceiling: 0.2 ppm (vacated) Ceiling: 0.8 mg/m <sup>3</sup>	Ceiling: 0.2 ppm Ceiling: 0.8 mg/m <sup>3</sup>	
ACETIC ACID	STEL: 15 ppm TWA: 10 ppm	TWA: 10 ppm TWA: 25 mg/m <sup>3</sup> (vacated) TWA: 10 ppm (vacated) TWA: 25 mg/m <sup>3</sup>	IDLH: 50 ppm TWA: 10 ppm TWA: 25 mg/m <sup>3</sup> STEL: 15 ppm STEL: 37 mg/m <sup>3</sup>	

### **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. Protective shoes or boots.

**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, light yellow, Green, Hazy	<b>Odor</b>	Mild ammonia
<b>Odor Threshold</b>	Not available	<b>Physical State @20°C</b>	Aqueous Solution, Liquid
<b>pH</b>	2.7	<b>Molecular Weight</b>	Not available
<b>Specific Gravity</b>	1.12	<b>Autoignition temperature</b>	Not available
<b>Flash point</b>	> 201 °F / > 95 °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>	0	<b>VOC (g/l)</b>	0
<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 bases. Strong acids.

### Hazardous Decomposition Products

None known.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

#### **Acute toxicity**

##### **Inhalation**

Toxic by inhalation. May cause allergic respiratory reaction. May cause additional affects as listed under "Ingestion".

##### **Eyes**

Corrosive to the eyes and may cause severe damage including blindness.

##### **Skin**

Causes burns. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

##### **Ingestion**

Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts. May cause additional affects as listed under "Inhalation".

#### Component Information

Chemical Name	Oral LD50	Dermal LD50	LC50 (lethal concentration)

GLUTARALDEHYDE	= 252 mg/kg ( Rat )	= 560 µL/kg ( Rabbit )	= 0.1 mg/L ( Rat ) 4 h
ACETIC ACID	600 mg/kg ( Rabbit ) [NZ CCID]	1060 mg/kg ( Rabbit )	11.4 mg/L ( Rat ) 4 h

**Information on toxicological effects**

No information available.

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

<b>Irritation</b>	Causes severe irritation and or burns.
<b>Corrosivity</b>	Corrosive to skin. Corrosive to eyes.
<b>Sensitization</b>	May cause sensitization by inhalation and skin contact.
<b>Mutagenic Effects</b>	No information available.
<b>Reproductive Toxicity</b>	No information available.
<b>Carcinogenicity</b>	None known.

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

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

**Target Organ Effects** Eyes, Respiratory system, Skin, Teeth.

**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 .

<b>ATEmix (oral)</b>	544 mg/kg
<b>ATEmix (dermal)</b>	1240 mg/kg
<b>ATEmix (inhalation-vapor)</b>	7 mg/l

**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
GLUTARALDEHYDE		Pimephales promelas: 5.4 mg/L at 96 h		0.56 - 1.0: 48 h Daphnia magna mg/L EC50 Static
ACETIC ACID		Pimephales promelas: 79 mg/L at 96 h		65: 48 h Daphnia magna mg/L EC50 Static

**Persistence and degradability**

No information available.

**Bioaccumulation**

Chemical Name	Octonol Water Partition Coefficient (log pow)
GLUTARALDEHYDE	0.22
ACETIC ACID	-0.31

**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.

<b>14. TRANSPORT INFORMATION</b>
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**DOT**

**Proper Shipping Name** Limited Quantity, Exempt from shipping papers

**TDG**

**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s. (GLUTARALDEHYDE)  
**UN/ID No** UN3265  
**Hazard Class** 8  
**Packing Group** II  
**Description** UN3265, Corrosive liquid, acidic, organic, n.o.s (GLUTARALDEHYDE), 8, II

**MEX**

**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s. (GLUTARALDEHYDE)  
**UN/ID No** UN3265  
**Hazard Class** 8  
**Packing Group** II  
**Description** UN3265, Corrosive liquid, acidic, organic, n.o.s (GLUTARALDEHYDE), 8, II

**ICAO**

**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s. (GLUTARALDEHYDE)  
**UN/ID No** UN3265  
**Hazard Class** 8  
**Packing Group** II  
**Description** UN3265, Corrosive liquid, acidic, organic, n.o.s (GLUTARALDEHYDE), 8, II

**IATA**

**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s. (GLUTARALDEHYDE)  
**UN/ID No** UN3265  
**Hazard Class** 8  
**Packing Group** II  
**Description** UN3265, Corrosive liquid, acidic, organic, n.o.s (GLUTARALDEHYDE), 8, II

**IMDG**

**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s. (GLUTARALDEHYDE)  
**UN/ID No** UN3265  
**Hazard Class** 8  
**Packing Group** II  
**EmS-No** F-A, S-B  
**Description** UN3265, Corrosive liquid, acidic, organic, n.o.s (GLUTARALDEHYDE), 8, II, Ltd. Qty

**ADR/RID**

**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s. (GLUTARALDEHYDE)  
**UN/ID No** UN3265  
**Hazard Class** 8  
**Packing Group** II  
**Classification Code** C3  
**Description** UN3265, Corrosive liquid, acidic, organic, n.o.s (GLUTARALDEHYDE), 8, II  
**ADR/RID-Labels** 8

**ADN**

**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s. (GLUTARALDEHYDE)  
**UN/ID No** UN3265  
**Hazard Class** 8  
**Packing Group** II



<b>Classification Code</b>	C3
<b>Description</b>	UN3265, Corrosive liquid, acidic, organic, n.o.s (GLUTARALDEHYDE), 8, II
<b>Hazard Labels</b>	8
<b>Limited quantity</b>	1 L

## 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 does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### 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)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
ACETIC ACID	5000 lb			X

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
ACETIC ACID	5000		RQ 5000 lb final RQ RQ 2270 kg final RQ

**U.S. State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
METHANOL	Developmental

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

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
GLUTARALDEHYDE	X	X	X		X
ACETIC ACID	X	X	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
GLUTARALDEHYDE		Mexico: Ceiling 0.2 ppm Mexico: Ceiling 0.7 mg/m <sup>3</sup>
ACETIC ACID		Mexico: TWA 10 ppm Mexico: TWA 25 mg/m <sup>3</sup> Mexico: STEL 15 ppm Mexico: STEL 37 mg/m <sup>3</sup>

**Other Regulations**

No information available

## 16. OTHER INFORMATION

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

\*Indicates a chronic health hazard.

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

**Revision Date** 26-Feb-2015

**Revision Note** No information available

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**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.

**end**