

SAFETY DATA SHEET

Issuing Date: 03-Dec-2015

Version 1

ARS-JP

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name ARS-JP
Product code 900002733
Product Use Alcohol Replacement Additive for Offset Printing.

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

Distributed in the USA by
 FUJIFILM North American Corporation,
 Graphic Systems Division
 200 Summit Lake Drive
 Valhalla, NY 10595-1356

Distributed in Canada by
 FUJIFILM Canada, Inc.
 600 Suffolk Ct.
 Mississauga, Ontario L5R 4G4

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

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

Company Phone Number U.S.A: 800-473-3854 Canada: 800-263-5018

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 - Dermal	Category 4
Acute toxicity - Inhalation (Vapors)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1B
Flammable liquids	Category 4

GHS Label elements, including precautionary statements

Warning

Hazard Statements

Harmful if swallowed
Harmful in contact with skin
Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
Combustible liquid

**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
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Contaminated work clothing should not be allowed out of the workplace
Keep away from heat/sparks/open flames/hot surfaces. - No smoking

Response

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
Call a POISON CENTER or doctor/physician if you feel unwell
If skin irritation or rash occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
In case of fire: Use CO2, dry chemical, or foam for extinction

Storage

Store in a well-ventilated place. Keep cool

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not classified

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	50-70%
ACETYLENIC DIOL	126-86-3	1-5%

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. If symptoms persist, call a physician.
Eye contact	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.
Skin contact	IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
Inhalation	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.
Ingestion	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
Protection of First-aiders	Use personal protective equipment.

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

Dry chemical. Carbon dioxide (CO₂). Water spray. Alcohol resistant foam.

Unsuitable Extinguishing Media

None known.

Specific hazards arising from the chemical

Combustible liquid. May be ignited by heat, sparks or flames. May cause sensitization by skin contact.

Explosion Data

Sensitivity to Mechanical Impact none

Sensitivity to Static Discharge Yes

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. Remove all sources of ignition. 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 further leakage or spillage if safe to do so. 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. Pick up and transfer to properly labeled containers. Take precautionary measures against static discharges. Pay attention to flashback. Use only non-sparking tools. 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. Take precautionary measures against static discharges. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Keep in properly labeled containers. Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs
ETHYLENE GLYCOL MONOBUTYL ETHER	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m ³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m ³ S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m ³	

Exposure controls

Engineering Measures Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Tightly fitting safety goggles.

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. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, Colorless	Odor	Mild
Odor Threshold	Not available	Physical State @20°C	Liquid
pH	6 - 8	Molecular Weight	Not available
Specific Gravity	0.957	Autoignition temperature	Not available
Flash point	> 176 °F / > 80 °C	Boiling point / boiling range	> 212 °F / > 100 °C
Decomposition temperature	Not available	Freezing Point	Not available
Melting point / melting range	Not available		
Flammability Limit in Air	Not available		
Oxidizing Properties	Not available	Explosive Properties	Not available
Solubility	completely soluble	Partition coefficient	Not available
Evaporation rate	Not available	Vapor Pressure	Not available
Vapor density	Not available	Density	Not available
VOC (lb/gal)	6.51	VOC (g/l)	780.87
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

Heat, flames and sparks.

Incompatible Materials

Strong oxidizing agents. Strong acids. Strong bases. Sodium hypochlorite.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Acute toxicity

Inhalation

Harmful by inhalation. Inhalation of vapors in high concentration may cause irritation of respiratory system.

Eyes

Irritating to eyes. May cause redness and tearing.

Skin

Irritating to skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Ingestion

Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Component Information

Chemical Name	Oral LD50	Dermal LD50	LC50 (lethal concentration)
ETHYLENE GLYCOL MONOBUTYL ETHER	= 470 mg/kg (Rat)	400 mg/kg (Rabbit) 2270 mg/kg (Rat)	= 450 ppm (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

Irritation	Irritating to eyes and skin.
Corrosivity	No information available.
Sensitization	May cause sensitization by skin contact.
Mutagenic Effects	No information available.
Reproductive Toxicity	No information available.
Carcinogenicity	None known.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organ Effects Blood, Central nervous system (CNS), Eyes, Hematopoietic System, Kidney, Liver, Respiratory system, Skin.

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)	760 mg/kg
ATEmix (dermal)	1759 mg/kg mg/l
ATEmix (inhalation-vapor)	18 mg/l

ATE: Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

Contains no substances known to be hazardous to the environment or that are not degradable in wastewater treatment plants.

Persistence and degradability

No information available.

Bioaccumulation

Chemical Name	Octanol Water Partition Coefficient (log pow)
ETHYLENE GLYCOL MONOBUTYL ETHER	0.81

Mobility

No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Dispose of in accordance with federal, state, and local regulations.

Contaminated packaging

Do not re-use empty containers.

14. TRANSPORT INFORMATION

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

15. REGULATORY INFORMATION

International Inventories

TSCA	Yes
DSL/NDSL	Yes
PICCS	Yes
EINECS/ELINCS	No
ENCS	Yes
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-%
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	1.0	50-70%

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
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, 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.

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
ETHYLENE GLYCOL MONOBUTYL ETHER	X	X	X	X	X

International Regulations

Canada - NDSL

This product does not contain any NDSL chemicals.

Mexico - Grade

Moderate risk, Grade 2

Mexico - Carcinogen Status and Exposure Limits

Chemical Name	Carcinogen Status	Exposure Limits
ETHYLENE GLYCOL MONOBUTYL ETHER		Mexico: TWA 26 ppm Mexico: TWA 120 mg/m ³ Mexico: STEL 75 ppm

		Mexico: STEL 360 mg/m ³
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Other Regulations
 No information available

16. OTHER INFORMATION

NFPA	Health Hazard 2	Flammability 2	Instability 0	Physical and chemical hazards -
HMIS	Health Hazard 2	Flammability 2	Physical Hazard 0	Personal protection B

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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