

# It's not magic. It's science.



Specifically designed for flexographic plate washing machines, Illuminate™ is excellent at breaking down flexographic water-based, varnish, and UV inks. Illuminate works fast on heavy ink buildup, no matter how long it's sat on your plates. Because it's such a powerful ink remover, Illuminate works incredibly well for many other printing industry cleaning needs. For starters, Illuminate is an unbeatable maintenance cleaning product for your entire print area. Put Illuminate to work removing even the toughest ink stains and spills on equipment, floors, and sink areas.

Illuminate is also effective for cleaning anilox rolls and most other printing equipment. What makes Illuminate such a dynamic product? It's not magic; it's science. Our proprietary Flexo Shine™ polymer system—with the industry's most complex sequestrants—breaks down ink. Fast! And, keeping with the Flexo Shine mission to continually improve environmental protection through better science, Illuminate contains less than 40g/L of VOC and less than 7.5 pounds VOC per 55-gallon drum! Don't get left in the dark ages... Join the numerous other major printing companies who have flipped the switch to Illuminate!

Take advantage of the clear benefits Illuminate provides:

- Made specifically for plate washing machines
- Removes water-based flexographic, varnish, and UV inks
- Will not shrink plates
- Cost effective
- Works on numerous surfaces
- Low VOC content
- Made from readily biodegradable ingredients

*Proudly Made in America*



*Take command of your business through science! Flexo Shine™ Illuminate™ is the latest advancement in polymer and sequester technology.*



**FLEXO SHINE™**



## ILLUMINATE TECHNICAL DATA

### GLOBAL HARMONIZATION

#### DANGER (FLAMMABLE AND EXCLAMATION SYMBOLS)

Causes severe eye damage. Causes skin irritation.  
Do not breathe dusts or mists. Wash thoroughly after handling.  
Wear protective nitrile gloves and safety glasses.

P260 Do not breathe dust/fumes/gas/mist/vapour/spray.

P264 Wash thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container in accordance with local, state, and federal rules.

### PERSONAL PROTECTION

For your safety, we recommend these precautions when using Illuminate:

- Safety glasses
- Nitrile gloves

### PHYSICAL PROPERTIES

The Illuminate formula results in safe physical properties:

- pH Neat: 13.22
- Specific Gravity: 1.07 g/ml
- Total VOC: <40 g/L
- Color: Yellow
- Odor: Little Odor
- Flash Point: Does Not Flash (TCC)

### DOT SHIPPING INFORMATION

Not Regulated by DOT

### OTHER REGULATORY

Contains No SARA Title III Listed Materials



## ILLUMINATE INSTRUCTIONS

For plate washing machines, add Illuminate at a dilution of 50/50 with water to the chemical sump of your plate washer. Use at temperatures between 70F and 120F. Consult your Flexo Shine™ representative for more information.

For spot cleaning, use undiluted for heavy or old ink stains. For less intense spot cleaning, a mixture of 50/50 with water works well.

Use Illuminate every day to maintain clean equipment, presses, and floors:

1. Apply product to stain.
2. Allow to sit and penetrate soil for one minute if possible.
3. Wipe clean with a soft cloth or rinse with fresh water.



## ILLUMINATE FIRST AID

### SHOULD YOU NEED TO PERFORM FIRST AID RELATED TO ILLUMINATE, WE RECOMMEND THE FOLLOWING:

- INGESTION: Drink two large glasses of water and seek medical attention.
- SKIN: Flush thoroughly with water and seek medical attention if irritation persists.
- EYES: Flush thoroughly with water and seek medical attention if irritation persists.
- INHALATION: Remove patient to fresh air and give artificial respiration.

Never give anything by mouth to an unconscious person. If patient is not breathing, ADMINISTER FIRST AID TREATMENT LISTED ABOVE, THEN CALL 1-800-851-7145 ext. 875 OR CONTACT A PHYSICIAN FOR FURTHER MEDICAL INSTRUCTION.



## Illuminate

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT IDENTIFIER

- Product Name** • Illuminate
- Product Formula** • FS-9150

#### RELEVANT IDENTIFIED USE OF THE CHEMICAL AND RESTRICTIONS ON USE

- Relevant Use** • Water-based cleaner for printing presses.

#### SUPPLIER DETAILS

- Flexo Shine  
PO Box 216  
Nixa MO 65714  
Ph: 417-434-6388  
orders@flexoshine.com

### SECTION 2: HAZARD IDENTIFICATION

*United States (US) - According to OSHA 29 CFR 1920.1200 Hazard Communication Standard*

#### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

- Hazard Classification** • Serious Eye Damage/Eye Irritation - 1  
Skin Corrosion/Irritation - 2

#### LABEL ELEMENTS

- Signal Word and Pictogram** • Danger  
Warning



#### HAZARD STATEMENTS

- H318 Causes serious eye damage
- H315 Causes skin irritation

#### PRECAUTIONARY STATEMENTS

- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P264 Wash thoroughly after handling.

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P321	Specific treatment for active ingredient poisoning is required.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

## OTHER HAZARDS •



HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

## SECTION 3: COMPOSITION INFORMATION ON

Chemical Identity	CAS	Percent Weight
Sodium Hydroxide	1310-73-2	<2
Ethanolamine	141-43-5	<5
No other reportable hazardous materials.	N/A	

## SECTION 4: FIRST AID MEASURES

- INHALATION** • If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Call a physician immediately.
- SKIN** • Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation persists. Wash clothing before reuse.
- EYE** • Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Call a physician if irritation persists.
- INGESTION** • Do not induce vomiting. Never give anything by mouth to an unconscious person. Dilute by drinking two large glasses of water. Call a physician immediately.

## SECTION 5: FIRE-FIGHTING MEASURES

- SUITABLE EXTINGUISHING MEDIA** • Use non-flammable or non-explosive extinguishing media.
- SPECIFIC HAZARDS** • No known unusual hazards in a fire or explosion situation.

**SPECIAL  
PROTECTIVE  
ACTIONS FOR  
FIREFIGHTERS**

- In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES****FOR NON-EMERGENCY  
PERSONNEL**

- For non-emergency personnel, ventilate area of leak or spill and remove all ignition sources. Wear appropriate personal protective equipment as required to prevent any contamination of skin, eyes, and personal clothing. Isolate release area. Do not touch or walk through spilled material unless wearing the appropriate protective equipment. Keep unnecessary and unprotected personnel from entering.

**FOR EMERGENCY  
RESPONDERS**

- For emergency responders, as an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep out of low areas. Keep unauthorized personnel away. Stay upwind. Ventilate closed spaces before entering.

**ENVIRONMENTAL PRECAUTIONS****ACCIDENTAL RELEASE  
ENVIRONMENTAL**

- Stop leak if you can do it without risk. If possible, keep from entering into drains, surface water, or ground water. This product is biodegradable.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP****CONTAINMENT  
AND CLEANUP**

- Contain and recover liquid when possible. Cover drains or cap spill when safe. Collect liquid in an appropriate container or absorb with an inert material (e.g. vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Small spills may be flushed to the sanitary sewer with approval from local authorities.

## SECTION 7: HANDLING AND STORAGE

**PRECAUTIONS FOR  
SAFE HANDLING**

- Protect against physical damage. Store in a cool, dry well-ventilated location. Avoid storing in direct sunlight when possible. Separate from incompatible materials such as strong acids or strong bases. Do not store in containers made from soft metals such as aluminum, magnesium, zinc, or galvanized steel.

**CONDITIONS FOR  
SAFE STORAGE AND  
INCOMPATIBILITIES**

- Protect against physical damage. Store in a cool, dry well-ventilated location. Avoid storing in direct sunlight when possible. Separate from incompatible materials such as strong acids or strong bases. Do not store in containers made from soft metals such as aluminum, magnesium, zinc, or galvanized steel.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**CONTROL PARAMETERS**

Chemical Identity	CAS	TLV
Sodium Hydroxide	1310-73-2	2 mg/m <sup>3</sup>
Ethanolamine	141-43-5	3 ppm

No other reportable hazardous materials.

N/A

N/A

**APPROPRIATE ENGINEERING CONTROLS**

- Use adequate ventilation systems as needed to maintain air concentrations below occupational exposure standards.

**INDIVIDUAL PROTECTIONS MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT****EYE / FACE PROTECTION**

- Chemical safety glasses.

**SKIN PROTECTION**

- Nitrile gloves.

**RESPIRATORY PROTECTION**

- None required under normal use.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****Appearance** Yellow liquid.**Odor** Little odor.**pH** 13.3 neat.**Melting Freezing Point** Not available.**Initial Boiling Point** Not available.**Flash Point** Does not flash.**Evaporation Rate** Not available.**Flammability** Not available.**VOC (g/L)** <50 g/L**Lower Limits** Not available.**Vapor Pressure** Not available.**Vapor Density** Not available.**Relative Density** 1.04 g/ml**Solubility** Not available.**Partition Coefficient** Not available.**Auto Ignition Temp** Not available.**Decomposition Temp** Not available.**Viscosity** Not available.**SECTION 10: STABILITY AND REACTIVITY****Reactivity**

- No dangerous reaction known under conditions of normal use.

**Chemical Stability**

- Stable under normal temperatures and pressures.

**Possibility of Haz Rxns**

- Will not occur.

**Conditions to Avoid**

- No unusual conditions.

**Incompatible Materials**

- Do not mix with strong acids or bases. Do not mix with any other chemical unless instructed to do so by the manufacturer.

**Hazardous Decomposition**

- In case of fire, oxides of carbon, hydrocarbons, fumes or vapors, soot, and smoke may be produced.

**SECTION 11: TOXICOLOGICAL INFORMATION****INFORMATION ON TOXICOLOGICAL EFFECTS****Acute Toxicity** No specific information available for mixture.**Skin Corrosion/Irritation** No specific information available for mixture.**Serious Eye Damage/Irritation** No specific information available for mixture.**Respiratory or Skin Sensitization** No specific information available for mixture.**Germ Cell Mutagenicity** No specific information available for mixture.**Carcinogenicity** No specific information available for mixture.**Reproductive Toxicity** No specific information available for mixture.

**STOT Single Exposure** No specific information available for mixture.  
**STOT Repeated Exposure** No specific information available for mixture.  
**Aspiration Hazard** No specific information available for mixture.

**Target Organs** Skin.  
**Routes of Entry Exposure** Ingestion, inhalation, skin, eye. Ingestion, inhalation, skin, eye.

## POTENTIAL HEALTH EFFECTS

- |                           |  |
|---------------------------|--|
| <b>INHALATION ACUTE</b>   | • May irritate nose, throat and lungs.   |
| <b>INHALATION CHRONIC</b> | • Vapors or mists may aggravate pre-existing lung conditions.  |
| <b>SKIN ACUTE</b>         | • May cause irritation. Prolonged exposure may cause redness or pain. and should be avoided.               |
| <b>SKIN CHRONIC</b>       | • Sensitivity of the skin may occur with repeated, prolonged exposure.                                     |
| <b>EYE ACUTE</b>          | • May cause redness, tearing, swelling and pain. Prolonged exposure to eyes should be avoided.             |
| <b>EYE CHRONIC</b>        | • No data available.   |
| <b>INGESTION ACUTE</b>    | • May irritate gastrointestinal tract. Ingestion of large amounts may cause nausea, vomiting and diarrhea. |
| <b>INGESTION CHRONIC</b>  | • No data available.   |

## SECTION 12: ECOLOGICAL INFORMATION

- |   |   |
|---|---|
| <b>TOXICITY</b>                           | • Not enough information on the mixture is available.   |
| <b>PERSISTENCE &amp; BIODEGRADABILITY</b> | • Not enough information on the mixture is available. The components of the mixture are determined as either readily biodegradable or inherently biodegradable. It is |
| <b>BIOACCUMULATIVE POTENTIAL</b>          | • Not enough information on the mixture is available.   |
| <b>MOBILITY IN SOIL</b>                   | • Not enough information on the mixture is available.   |
| <b>OTHER ADVERSE EFFECTS</b>              | • Not enough information on the mixture is available.   |

## SECTION 13: DISPOSAL CONSIDERATIONS

- |                                |  |
|--------------------------------|--|
| <b>DISPOSAL CONSIDERATIONS</b> | • Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements. |
|--------------------------------|--|

## SECTION 14: TRANSPORT INFORMATION

- |  |  |
|--|--|
| <b>TRANSPORT ENVIRONMENTAL HAZARDS</b> | • Not regulated by D.O.T.<br>• None known. |
| <b>SPECIAL PRECAUTIONS</b>             | • None known.                              |

## SECTION 15: REGULATORY INFORMATION

### SARA TITLE III INFORMATION

## Chemical Identity

CAS / CAT CODE PERCENT WT

None Reportable

**OTHER REGULATORY INFORMATION**

- **TSCA (Toxic Substance Control Act):** All ingredients of this product are listed on the TSCA inventory.
- **CARCINOGENICITY:** Not listed by IARC, NTP, or OSHA.
- **CALIFORNIA PROPOSITION 65:** This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins which would be subject to the proposition.

## SECTION 16: OTHER INFORMATION

Last Revision Date 11/20/2018

Date Prepared 8/28/2015

**KEY TO ABBREVIATIONS**

N/E = Not Established. CAS = Chemical Abstract Service. ppm = Parts Per Million  
g/L = Grams per Liter mg/m<sup>3</sup> = milligrams per cubic meter

**LIABILITY DISCLAIMER**

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