

SAFETY DATA SHEET



SDS No.: 4.1
Date Created: March 13, 2017
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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: EasiSolv 1028 Ink & Emulsion Remover
General Use: Ink And Emulsion Remover
Product Description: Liquid

Easiway Systems, Inc.
Easiway Systems, Inc.
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Easiway Systems Contract Number MIS3609005

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

GHS CLASSIFICATION OF SUBSTANCE

Flammable Liquid	Not Applicable
Aspiration Toxicity	Not Applicable
Skin Corrosion/ Irritation	Category 2
Eye Irritation	Category 1
Carcinogenicity	Not Rated Under GHS
Specific Organ Toxicity Repeated Exposure	Category 2 - thyroid
Specific Organ Toxicity Single Exposure	Not Rated Under GHS
Reproductive Toxicity	Not Rated Under GHS
Acute Toxicity	Not Rated Under GHS
Germ Cell mutagenicity	Not Rated Under GHS
Corrosive to Metals	Not Rated Under GHS; G31 Corrosion test completed for more concentrated similar material
Hazardous to the aquatic environment	Refer to Section 12

Hazard Category - means the division of criteria within each hazard class, e.g. acute toxicity includes five hazard categories and flammable liquids include four hazard categories. These categories compare hazard severity within a hazard class. "GHS Classification of Substance" means the material hazard class under that particular category and should not be taken as a comparison of hazard categories more generally. Degree of severity under GHS is "1" being the most severe and sequential numbers indicating correspondingly less severity. "Not Classified Under GHS" does not have characteristics that fall into any of the categories for that hazard class.

GHS LABEL ELEMENTS



DANGER

Hazard Statements

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H315 - Causes skin irritation
H318 - Causes serious eye irritation
H373 - May cause damage to thyroid through prolonged or repeated ingestion of iodine containing ingredients
H402 - Harmful to aquatic life

Precautionary Statements

General:

P101-If medical advice is needed, have product container or label at hand.
P103-Read label before use.

Prevention:

P260 - Do not breathe vapors, mist
P264 - Wash skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves/protective clothing/eye protection/face protection

Response:

P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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 doctor, a POISON CENTER.
P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment (see supplemental first aid instructions on the label or this SDS).
P331 - Do NOT induce vomiting.
P363 - Wash contaminated clothing before reuse.

Storage/Disposal:

P405 - Store locked up.
P501-Dispose of contents/container in accordance with local/regional/federal regulations.

UN GHS According to the Globally Harmonized Standard for Classification and Labeling (GHS), this product is considered hazardous based on its eye irritation and iodine content.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>wt%</u>	<u>CAS Registry #</u>
Sodium Metaperiodate	1 - 3	7790-28-5
Dibasic Esters	7 - 20	1119-40-0, 627-93-0, 106-65-0
Benzenesulfonic acid, C ₁₀ -C ₁₆ -alkyl derivatives	<1	68584-22-5
Sulfuric Acid	trace	7664-93-9
Nonylphenol polyethylene glycol ether	2 - 5	127087-87-0
Sodium Dioctyl Sulfosuccinate	9 - 12	577-11-7
Dipropylene glycol monomethyl ether acetate	10 - 20	88917-22-0
Water	balance	

4. FIRST AID MEASURES

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INHALATION:

Remove to fresh air and keep at rest in a comfortable position. Get medical attention if symptoms persist after moving to fresh air. Give oxygen if available, symptoms persist, and medical attention is not immediate.

EYE CONTACT:

Remove contact lenses (if present). Rinse eyes immediately with plenty of clean water for at least 15 minutes. If necessary, gently hold the eyelid open during the flush. If eye irritation persists, seek medical attention.

SKIN CONTACT:

Wash skin with mild soap solution to remove material immediately after contact. Prolonged contact will increase the potential for skin irritation.

INGESTION:

Not a likely route of exposure based on use. If accidental ingestion does occur, rinse mouth immediately with water. Seek immediate medical attention and provide SDS to attending medical personnel. DO NOT INDUCE VOMITING as product presents an aspiration hazard.

5. FIRE FIGHTING MEASURES

Flashpoint and Method: >93 C/200 F

Flammable Limits: Unknown

Autoignition Temperature: Unknown

GENERAL HAZARD:

Product is water-based but has sufficient organic components to present a fire hazard. Sodium metaperiodate is an oxidizer and may contribute oxygen to a fire.

FIRE FIGHTING INSTRUCTIONS:

Water fog or fine spray; dry chemical fire extinguishers; carbon dioxide fire extinguishers; foam; alcohol resistant foams (ATC type). Use water fog or fine spray for cooling exposed containers to control heating.

FIRE FIGHTING EQUIPMENT:

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. Do not enter an area having containers of this product without self-contained breathing apparatus.

FURTHER INFORMATION:

During a fire, smoke may contain the original material in addition to combustion products which might be more irritating.

HAZARDOUS COMBUSTION PRODUCTS:

Carbon dioxide, aldehydes, and iodine salts.

6. ACCIDENTAL RELEASE MEASURES

LAND SPILL RESPONSE:

Absorb small spills with inert material such as sand or earth. Containerize waste material. Dike large spills to contain the area of the spill. Use clean-up procedures that minimize contamination to earth or water bodies.

WATER SPILL:

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Material is water-based and is expected to mix immediately with the water body. Collection will be difficult but restrict transfer to the localized spill area in the case of a large spill (many gallons) by diking or other means as this product is aquatically toxic based on iodine content and dibasic esters.

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RECOMMENDED DISPOSAL:

Disposal options may be dictated by other materials mixed with this material. Dispose of in accordance with local, state, and federal regulations using methods which consider recycling/reclamation.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE: Ambient

STORAGE PRESSURE: Atmospheric

GENERAL:

Keep the container tightly closed. Store in a dry, cool, and well-ventilated place away from incompatible materials such as caustics. Preferable storage is a restricted area designed for acids and oxidizers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200 and other agencies)

Component	EXPOSURE LIMITS 8 hrs TWA (ppm)				
	OSHA PEL	ACGIH TLV	NIOSH REL	AIHA WEEL	Other
Sodium Metaperiodate	None Established	0.01 ppm*	None Established		
Sulfuric Acid	1 mg/m ³	0.2 mg/m ³	1 mg/m ³		
Benzenesulfonic acid, C ₁₀ -C ₁₆ -alkyl derivatives	None Established	None Established	None Established		
Dibasic Esters	None Established	None Established	None Established		
Dipropylene glycol monomethyl ether acetate	None Established	None Established	0.08 mg/m ³ **		

*-TLV set for iodides in general measured as inhalable fraction and vapor and not specific for sodium metaperiodate.

** -Draft interim REL March 2010

The product presents an inhalation hazard as both a vapor and a mist. Sodium metaperiodate is a moderately strong oxidizing agent.

ENGINEERING CONTROLS:

Provide adequate general and local exhaust ventilation to maintain airborne component levels below established exposure limits. The configuration of a facility, chemical use quantities, methods of use, and length of use, are all factors to be considered when determining appropriate ventilation. Exposure monitoring data collected in the facility can be used to determine the adequacy of existing exhaust ventilation. Provide eyewash stations and safety showers in locations available to product users. Provide hand washing facilities for routine use by personnel using the product.

PERSONAL PROTECTION:

Splash goggles and apron should be worn when pouring this material to avoid contact with the liquid. Hand protection is recommended up to the elbow when there is possible direct contact with the liquid. Glove choice should be appropriate for the chemical blend and the specific activity being performed. NOTE: nitrile gloves are a general purpose glove available in a wide variety of thicknesses and protect against most chemicals. Respiratory protection should be appropriate for acids/oxidizer exposure and organics and utilized if ventilation cannot be established to adequately

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maintained exposure within exposure limits such as might occur when cleaning up spills.

EXPOSURE EVALUATION:

The only established exposure limits for this product are for sulfuric acid. The American Conference of Governmental Industrial Hygienists (ACGIH) threshold limit value (TLV) for iodides of 0.01 ppm can be applied to sodium metaperiodate exposure. An interim NIOSH REL has been published for Dipropylene glycol monomethyl ether acetate (DGMEA) of 0.08 mg/m³. Exposure monitoring can be performed if information as to personal exposure is desired and the product is used in a form that it can be inhaled. There are existings sampling methods for sulfuric acid and dipropylene glycol monomethyl ether acetate (DGMEA). Sodium metaperiodate may be determined by analyzing for the iodine component and assuming the source is all sodium metaperiodate. It is recommended that exposure monitoring be performed if this product is applied as a mist in even in dilute form even when respiratory protection is provided.

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure:	Unknown	Vapor Density:	Unknown
Specific Gravity:	1,03	Evaporation Rate:	Unknown
Solubility in Water:	Soluble	Freezing Point:	Unknown
pH:	5 - 6	Odor:	Mild
Boiling Point:	100 °C/212 °F	Appearance:	Clear, colorless
Viscosity:	<10 cps	Physical State:	Liquid
Flash Point:	>93 °C/200° F	Flammable Range:	Not Applicable
		VOC content:	300 g/l (2.5 lbs/gallon) calculated based on EPA Method 24 criteria

10. STABILITY AND REACTIVITY

GENERAL:

The sodium metaperiodate component is an oxidizer and may intensify a fire by providing oxygen.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

Combustible materials, reducing agents, organic materials, caustics

HAZARDOUS DECOMPOSITION:

Heating will cause decomposition resulting in corrosive acid residues to metal surfaces that need to be removed to be removed to prevent shortened life span.

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11. TOXICOLOGICAL INFORMATION

TOXICITY TO ANIMALS:

<u>Component</u>	<u>Acute Test</u>	<u>Value</u>	<u>Species</u>
Sodium Metaperiodate	LD50 intraperitoneal	58 mg/kg	Mouse
Sodium Metaperiodate	EPISKIN Human Skin Model Test	Corrosive Category 1C (exposures between 1 and 4 hrs with observations up to 14 days)	
Sodium Metaperiodate	LD50 oral	264 mg/kg	Rat
Sulfuric Acid	LD50 oral	2140 mg/kg	Rat
Sulfuric Acid	LC50 inhalation	510 mg/m ³ - 2hr	Rat
Benzenesulfonic acid, C ₁₀ -C ₁₆ -alkyl derivatives	LD50 oral	775 mg/kg	Rat
Benzenesulfonic acid, C ₁₀ -C ₁₆ -alkyl derivatives	LD50 dermal	2000 mg/kg	Rabbit
Dipropylene glycol monomethyl ether acetate	LD50 oral	5,448 mg/kg	female rats
Dipropylene glycol monomethyl ether acetate	LC50 inhalation	>5,700 mg/m ³	rats
Dipropylene glycol monomethyl ether acetate	LD50 dermal	>5,000 mg/m ³	rats

ROUTES OF ENTRY:

Inhalation of vapor or mist. Product contains ingredients that are oxidizers and are skin and eye exposure hazards.

CHRONIC EFFECTS ON HUMANS:

Long-term or repeated exposure to sodium metaperiodate can result in cumulative effects from exposure to the iodine component. Possible products of the reaction of sodium metaperiodate with various body materials produce iodine and iodide. Iodine is essential to the thyroid but over supply causes goiter and changes in the activity of the thyroid gland. Ingredients are not identified as suspect carcinogens, sensitizers, and germ cell mutagens. Reproductive hazard exists with excessive iodine exposure via the oral route but this is unlikely based on prescribed product use.

Eyes:

The product chemical mixture is irritating to eyes. Eye contact with the liquid or mist needs to be addressed immediately.

Skin:

The product mixture is irritating to skin. Wash affected skin immediately after contact.

Ingestion:

Not a likely route of exposure based on product use, however, the iodine component needs to be addressed by medical personnel. The organic components of the product present a aspiration hazard, do NOT INDUCE VOMITING.

Inhalation:

Components of the product are organic and have some volatility that can present a vapor inhalation hazard. Aerosolizing the product to produce a mist will create an inhalation hazard. Personal protection, including respiratory protection, needs to be utilized if using the product in an aerosol/mist.

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12. ECOLOGICAL INFORMATION

<u>Species</u>	<u>Test Information</u>	<u>Concentration</u>	<u>Component</u>
Oncorhynchus mykiss (rainbow trout)	semi-static LC50	>0.17 mg/l-96hr	Sodium periodate
Daphnia magna (Water flea)	static test LC50	>0.18 mg/l-48hr	Sodium periodate
Pimephase promelas	LC50 - 96 hr	18-24 mg/L	Dibasic Ester
Daphnia magna (Water flea)	EC50 - 48 hr	112-150 mg/L	Dibasic Ester

There is very little data available on ecological toxicity of product ingredients, however, it likely to reduce to iodides in the environment and is likely to be harmful to aquatic life when introduced in volume. Dibasic esters are known to be acutely toxic to fish and algae but not harmful to invertebrates.

PRODUCTS OF BIODEGRADATION:

Product iodine-containing component is likely to reduce to iodides in the environment. Depending on the quantity, these could be hazardous to aquatic life.

13. DISPOSAL CONSIDERATIONS

Dispose of any waste in compliance with local, state, and federal regulations. Determine EPA RCRA waste categorization at the time of disposal as mixing with other materials may change its categorization. Containers may contain residue that needs to be addressed at time of disposal. Recycling containers needs to address any remaining residues.

14. TRANSPORT INFORMATION

The following proper shipping name, hazard class and packing group are in accordance to 49 CFR Department of Transportation (U.S. DOT) regulatory requirements from 172.101 Hazardous Materials Table

49 CFR Shipping Information	EasiSolv 1028 Ink & Emulsion Remover
Symbols	"G" - identifies proper shipping names for which one or more technical names of the hazardous material must be entered in parentheses, in association with the basic description. See 172.203(k).
UN Number	NA
Proper Shipping Name	NA
Hazard Class	NA
Packing Group	NA
Label Codes	NA
Special Provisions (172.102)	NA
Packaging - Exceptions	NA
Packaging - Nonbulk	NA
Packaging - bulk	NA
Quantity Limitations - Passenger aircraft/rail	NA
Quantity Limitations - Cargo aircraft only	NA
Vessel stowage - Location	NA
Vessel stowage - Other	NA

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15. REGULATORY INFORMATION

Chemical Inventory Status

Ingredients listed on: TSCA, DSL, Japan, and EC inventories.

SARA Section 302 - Emergency Planning Notification - Sulfuric Acid

SARA Section 304 - Emergency Release Notification - Sulfuric Acid

SARA 311/312 - Hazard categories for SARA Section 311/312 Reporting -

Immediate (acute) health hazard, Delayed (chronic) health hazard

CERCLA - Hazardous Substance - Sulfuric Acid

RCRA Hazardous Waste Classification - None

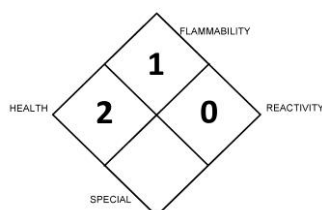
California Proposition 65:

Ethyl alcohol is on the list but listing is applicable to alcoholic beverages only so listing is not applicable to this product.

16. OTHER INFORMATION

UNITED STATES NATIONAL FIRE PROTECTION ASSOCIATION (U.S. NFPA)

NFPA 704 "fire diamond" is used by emergency personnel to quickly identify the risks posed by the material during response to a fire or a spill or other unusual event.



NFPA rating explanation as applied to EasiSolv 1028 Ink & Emulsion Remover

FIRE 1 - Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur (e.g. mineral oil). Flash point at or above 200 F/93.3 C.

HEALTH 2 - Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury

REACTIVITY 0 - Normally stable, even under fire exposure conditions, and is not reactive with water.

SPECIAL - contains special symbols applicable to the material. In this case there are no applicable special conditions.

The Hazardous Materials Identification System (HMIS) is a numerical hazard rating that incorporates the use of labels with color developed by the American Coatings Association as a compliance aid for the OSHA Hazard Communication Standard.

EasiSolv ES1028 Ink & Emulsion Remover

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	H

HEALTH -
FLAMMABILITY-

REACTIVITY-

PERSONAL PROTECTION-

2 - Temporary or minor injury may occur.

1 - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi-solids having a flash point above 200 °F/93 °C (e.g. Canola oil)
0-Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Nonexplosives.

Gloves. Protective goggles. Protective clothing. Insufficient

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ventilation: wear respiratory protection.

CREATION/REVISION SUMMARY:

Created on: 13-mar-17

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