

## Material Safety Data Sheet (ANSI form)

### Section1 : Chemical Product and Company Identification

Product Name : SHOWBRINE SLP-R13  
 General Use : The image formation of printing machine or copier.  
 MSDS Number : D0747261  
 Company Name : Ricoh Americas Corporation  
 Department :  
 Address : 5 Dedrick Place, West Caldwell, NJ 07006  
 Telephone : 1-973-882-2000 or 1-973-882-5218 (For product information) or  
 Number : 1-800-336-6737 (For emergencies)  
 Telefax Number : 1-973-882-3959  
 E-mail : environmentinfo@ricoh-usa.com

### Section2 : Composition, Information on Ingredients

Ingredients CAS No./Common Name	Chemical Formula	Contents (%)	ACGIH (TLV)			OSHA (PEL)	
			TWA	STEL	C	TWA	C
57-55-6 Propylene glycol	C3H8O2	30-40	N.A	N.A	N.A	N.A	N.A
7732-18-5 Water	H2O	60-70	N.A	N.A	N.A	N.A	N.A
7757-79-1 Nitric acid potassium salt	HNO3.K	0.1-1	N.A	N.A	N.A	N.A	N.A
Confidential Additive	Confidential	1-2	N.A	N.A	N.A	N.A	N.A

This product does not contain any of the following substances as ingredients.  
 Cadmium, Hexavalent Chromium, Mercury, Lead, Polybrominated biphenyls (PBB), Polybrominated diphenyleters (PBDE), SVHC (substances of very high concern: published by ECHA).

### Section3 : Hazards Identification

#### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

<b>HMIS</b>	Health : 1	Flammabilit : 1 y	Reactivity : 0	PPE:See section 8
<b>NFPA</b>	Health : 1	Flammabilit : 1 y	Reactivity : 0	

#### The Most Important Hazards

##### Adverse Human Health Effects :

Not applicable to harmful preparation in normal use.

##### Potential Health Effects

##### Primary Entry Routes :

Inhalation ; No

Skin ; Yes

Ingestion ; Yes

##### Environmental Effects :

Not applicable to environmental harmful preparation in normal use.

##### Physical and Chemical Hazards :

Not applicable to hazardous preparation in normal use.

##### Specific Hazards :

There are no significant hazards expected with intended use.

##### Main Symptoms :

##### Acute Inhalation Toxicity

Under normal use conditions,there is no possibility to inhale the particle of photosensitive component.

##### Acute Oral Toxicity

Low acute toxicity in animal experiment

##### Acute Eye Irritation

May be non-irritant.

##### Acute Skin Irritation

May be non-irritant.

##### Sensitization

May be non-sensitization.

##### Chronic Effect

Under normal use conditions, there is no possibility to inhale the particle of photosensitive component.

##### Carcinogenicity

This product does not contain the substances classified as carcinogenic by NTP, IARC or OSHA.

##### Medical Conditions Aggravated by Exposure

None

##### Classification of the Chemical Product

This mixture is not classified as dangerous.

#### Section4 : First Aid Measures

Inhalation :

Gargle with plenty of water and move to place where air is fresh. If necessary, seek medical advice.

Skin Contact :

Wash thoroughly with soapy water.

Eye Contact :

Immediately wash eyes with plenty of water. If necessary, seek medical advice.

Ingestion :

Dilute stomach contents with plenty of water. If necessary, seek medical advice.

Immediate Medical Attention :

Immediate medical attention is not required.

#### Section5 : Fire Fighting Measures

Flash Point (degrees centigrade) : Not applicable  
Burning Rate (mm/sec) : Not applicable  
Autoignition Temperature (degrees centigrade) : 400 (Propylene glycol)

Flammable Limits(%) : LEL 12.5 UEL 2.6

Extinguishing Media to Avoid :

Not applicable

Specific Hazards :

Not applicable

Fire-Fighting Instructions / Specific Method :

Sprinkling water or use extinguisher in generally.

Protection of Firefighters :

Wear gloves, glasses, a mask if necessary.

#### Section6 : Accidental Release Measures

Personal Precautions :

Avoid prolonged or repeated contact with skin.

Environment Precautions :

Do not exposure to sewers and watercourses.

Methods for Cleaning Up :

If spilled, wipe up with paper or cloth.

#### Section7 : Handling and Storage

Handling :

Technical Measures/Precautions

Not applicable

Safe Handling Advice

Minimize skin contact.

Storage :

Technical Measures

Not applicable

Storage Conditions

Keep out of reach of children.

Keep at a temperature not exceeding 35 °C in quality.

Avoid direct sunlight in quality.

Packaging material

Not applicable

Specific Use(s) :

Image formation in printing machines or copiers.

## Section8 : Exposure Controls/Personal Protection

### Technical measures :

Local exhaust equipment is needed

### Control Parameters

#### Exposure Limit Value ( I )

USA OSHA PEL: Not available  
(TWA)

ACGIH TLV (TWA) : Not available

DFG MAK : Not available

### Personal Protection

#### Respiratory Protections (Specify Type)

Unnecessary in an usual use condition, however, wear mask is desirable in high density environment.

#### Eye Protection

Wear safety glasses.

#### Protective Gloves

Wear gloves.

#### Protective Clothing or Equipment

To prevent any contact, wear impervious clothing such as gloves, apron, boots, or whole body suits.

#### Hygiene Measures

Wash hands after handling.

## Section9 : Physical and Chemical Properties

### Appearance

Physical state : Liquid

Form : Liquid

Colour : Colorless

Odor : No odor

pH : Approx.8.2 Measuring Temp (degrees centigrade) : 20

Boiling Point (degrees centigrade) : Approx.105

Vapor Pressure (Pa) 11 or below (Propylene glycol) Measuring Temp (degrees centigrade) : 20

Vapor Density : 2.62 (Propylene glycol)  
(AIR=1)

Density (g/cm<sup>3</sup>) : Approx.1.03 Measuring Temp (degrees centigrade) : 20

Formula Weight : Not applicable

Melting Point (degrees centigrade) : Approx.-15

Decomposition temperature (degrees centigrade) : Not available

Viscosity (Pa·s) : Not available

Volatile (%) : 67-68

Evaporation Rate (Butyl Acetate = 1) : Not available

Water Solubility (g/L) : soluble

not available Solubility (g/L) : -

## Section10 : Stability and Reactivity

### Stability :

Stable

### Hazardous Reaction :

There is no significant hazardous reaction expected with intended use.

### Condition to Avoid :

Not applicable in normal use.

### Materials to Avoid :

Not applicable in normal use.

### Hazardous Polymerization :

None

### Hazardous Decomposition or Byproducts :

Decomposition products will not occur.

## Section11 : Toxicological Information

### Acute Toxicity

Acute Oral Toxicity (LD50) :  
5000 or over [mg/kg] (Rat)

Acute Dermal Toxicity :  
Not available

Acute Inhalation Toxicity :  
Not applicable

### Local effects

Acute Skin Irritation(PII) :  
Not available

Acute Eye Irritation :  
Non-irritant (Rabbit)

### Sensitization

Acute Allergenic Effects :  
Not available (Ingredients are not classified as dangerous according to Directive 67/548/EEC.)

### Specific Effects

Carcinogenicity :  
This product does not contain the carcinogenic substances which are listed on NTP, IARC and OSHA.

Mutagenicity : Not available (Ingredients are not classified as dangerous according to Directive 67/548/EEC.)

Reproduction Toxicity : Ingredients are not classified as dangerous according to Directive 67/548/EEC.

Teratogenic : Not available

## Section12 : Ecological Information

Mobility : No data are available on the adverse effect one environment.

Persistence/Degradabilit : Not available

y

Bioaccumulation : Not available

### Ecotoxicity

Acute Toxicity for Fish (LC50) : Not available

Acute Toxicity for Daphnia  
(EC50) : Not available

Algae Inhibition Test (IC50) : Not available

### Section13 : Disposal Consideration

#### General information:

Used product should be disposed in an environmentally appropriate manner and accordance with governmental regulations.

#### Disposal methods:

Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Confirm disposal procedures with local regulations.

#### Precautions

Not applicable

### Section14 : Transport Information

#### International Regulations

##### Land Transport

RID/ADR : Not available  
DOT 49 CFR : Not applicable  
ADNR : Not available

##### Sea Transport

IMDG Code : Not available

##### Air Transport

ICAO-TI/IATA-DGR : Not available  
UN Number : Not applicable  
Class : Not applicable

#### Specific Precautionary Transport Measures and Conditions

Avoid direct sunlight in quality.

### Section15 : Regulatory Information

#### Regulations

##### US Information

Information on the label : Not required

TSCA (Toxic Substances Control Act) :

This product complies with all applicable rules and regulations under TSCA.

SARA (Superfund Amendments and Reauthorization Act) Title III

313 Reportable Ingredients : Not regulated

California Proposition 65 : Not regulated

##### Canada Information

WHMIS Controlled product : Not a controlled product

##### EU Information

Information on the label (1999/45/EC and 67/548/EEC)

Symbol & Indication : Not required

R-Phrase : Not required

S-Phrase : Not required

Special Precautions under 1999/45/EC Annex V : Not required

76/769/EEC

This product complies with applicable rules and regulations under 76/769/EEC

## Section 16 : Other Information

Explanation of Hazardous Materials Identification System [HMIS] & National Fire Protection Association [NFPA] Hazard Rating Systems:

Both the HMIS and NFPA systems use number from "0" to "4" to show the degree of hazard in an uncontrolled situation:

**0=Minimum Hazard 1=Slight Hazard 2=Moderate Hazard 3=Serious Hazard 4=Severe Hazard**

Colors may also be used in both systems:

**Blue=Health Hazard Red=Fire Hazard Yellow=Reactivity Hazard White=Indicate a special hazard**

HMIS will specify any Personal Protective Equipment required [PPE],

NFPA will specify OX(oxidizer), Acid(acid), ALK(Alkali), COR(Corrosive), W(use no water), xx(Radioactive).

Literature References :

ANSI Z400.1-1993

ISO 11014-1

Commission Directive 91/155/EEC

IARC (1996) "IARC Monograph on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol.65, Printing Process and Printing Inks, Carbon Black and Some Nitro Compounds", Lyon, pp149-261

H.Muhle, B.Bellman, O.Creutzenberg, C.Dasenbrock, H.Emst, R.Kilpper, J.C.MacKenzie, P.Morrow, U.Mohr, S.Takenaka and R.Mermelstein(1991) "Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats" Fundamental and Applied Toxicology 17,pp280-299

IARC (2008) "IARC Monograph on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol.93"

NIOSH CURRENT INTELLIGENCE BULLETIN "Evaluation of Health Hazard and Recommendation for Occupational Exposure to Titanium Dioxide DRAFT"

ACGIH-TLV : Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices

OSHA Z-Tables : US Department of Labor, 29CFR Part 1910 , Tables Z-1, Z-2, and Z-3

NTP (USA) : US Department of Health and Human Services National Toxicology Program Annual Report on Carcinogens  
DFG-MAK (GER) : DFG List of MAK and BAT Value

Symbol (EC) : EU Directive 67/548/EEC

91/155/EEC : EU Directive 91/155/EEC

1999/45/EC Annex V : EU Directive 1999/45/EC

76/769/EEC : EU Directive 76/769/EEC

EC 304/2003 : Regulation (EC) No 304/2003 of the European Parliament and of the Council of 28 January 2003 concerning the export and import of dangerous chemicals

WHMIS Controlled product : Canada Workplace Hazardous Information System

OELs-TWA (Australia) : Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC: 3008 (1995)]

Abbreviations :

OSHA PEL : PEL (Permissible Exposure Limit) under Occupational Safety and Health Act

ACGIH-TLV : TLV (Threshold Limit Values) under American Conference of Governmental Industrial Hygienists

REACH : EC)No.1907/2006:Council Regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals

SVHC : Substances of Very High Concern

ECHA : The European Chemicals Agency

DFG-MAK : MAK (Maximale Arbeitsplatz Konzentrationen) by Deutsche Forschungs Gemeinschaft

RoHS : Restriction of the use of certain Hazardous Substances in Electrical and Electronic Equipment

TWA : Time Weighted Average

IARC : International Agency for Research on Cancer

NTP : National Toxicology Program

WHMIS : Workplace Hazardous Information System

NOHSC : National Occupational Health and Safety Commission Act 1985

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