



MATERIAL SAFETY DATA SHEET

SECTION 1 : COMPANY AND PRODUCT IDENTIFICATION

Manufacturer : i-SENS, Inc.
Address : 465-6, 465-14 Wolgye-dong Nowon-gu Seoul 139-845, Korea
Phone Number : +82-2-916-6191
Fax Number : +82-2-942-2514

<u>Product Name</u>	<u>Product Configuration</u>	<u>Part No.</u>
i-Smart 30 VET Cartridge	30T (4 weeks)	6800
	50T (4 weeks)	6801
	100T (4 weeks)	6802
	150T (4 weeks)	6803
	200T (4 weeks)	6804
i-Smart 30 VET Cartridge (export)	30T (export, 4 weeks)	6810
	50T (export, 4 weeks)	6811
	100T (export, 4 weeks)	6812
	150T (export, 4 weeks)	6813
	200T (export, 4 weeks)	6814

Data Prepared : 09-24-2012
Prepared by : Min Soo Kim

SECTION 2 : HAZARDOUS INGREDIENTS in PRODUCT

CHEMICAL NAME	CONCENTRATION PERCENT BY WEIGHT
<u>Cal 1 Solution</u>	
MOPS, sodium salt	0.86 %
3-(N-Morpholino)propanesulfonic Acid, Sodium	
CAS-No. : 71119-22-7	
EC-No. : 264-899-3	
Hazard Classification : Xi (as raw material)	
Risk Code : R36/37/38	
R36/37/38 : Irritating to eyes, respiratory system and skin	
MOPS, Free acid	0.25 %
3-(N-Morpholino)propanesulfonic Acid	
CAS-No. : 1132-61-2	
EC-No. : 214-478-5	
Hazard Classification : Xi (as raw material)	
Risk Code : R36/37/38	
R36/37/38 : Irritating to eyes, respiratory system and skin	
Calcium Chloride	0.02 %
CAS-No. : 10035-04-8	
EC-No. : 233-140-8	
Hazard Classification : Xi (as raw material)	
Risk Code : R36	
R36 : Irritating to eyes	



SECTION 2 : HAZARDOUS INGREDIENTS in PRODUCT (continued)

MIT	0.005 %
2-Methyl-4-isothiazolin-3-one hydrochloride	
CAS-No. : 26172-54-3	
EC-No. : 247-499-3	
Hazard Classification : C (as raw material)	
Risk Code : R34, 42/43	
R34 : Causes burns	
R42/43 : May cause sensitization by inhalation and skin contact	
<u>Cal 2 Solution</u>	
MOPS, sodium salt	0.88 %
3-(N-Morpholino)propanesulfonic Acid, Sodium	
CAS-No. : 71119-22-7	
EC-No. : 264-899-3	
Hazard Classification : Xi (as raw material)	
Risk Code : R36/37/38	
R36/37/38 : Irritating to eyes, respiratory system and skin	
MOPS, Free acid	0.23 %
3-(N-Morpholino)propanesulfonic Acid	
CAS-No. : 1132-61-2	
EC-No. : 214-478-5	
Hazard Classification : Xi (as raw material)	
Risk Code : R36/37/38	
R36/37/38 : Irritating to eyes, respiratory system and skin	
Calcium Chloride	0.04 %
CAS-No. : 10035-04-8	
EC-No. : 233-140-8	
Hazard Classification : Xi (as raw material)	
Risk Code : R36	
R36 : Irritating to eyes	
MIT	0.005 %
2-Methyl-4-isothiazolin-3-one hydrochloride	
CAS-No. : 26172-54-3	
EC-No. : 247-499-3	
Hazard Classification : C (as raw material)	
Risk Code : R34, 42/43	
R34 : Causes burns	
R42/43 : May cause sensitization by inhalation and skin contact	
<u>Reference Solution</u>	
Silver Nitrate	0.08 %
CAS-No. : 7761-88-8	
EC-No. : 231-853-9	
Hazard Classification : O, C, N (as raw material)	
Risk Code : R8, 34, 50/53	
R8 : Contact with combustible material may cause fire	
R34 : Causes burns	
R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment	



SECTION 2 : HAZARDOUS INGREDIENTS in PRODUCT (continued)

Ammonium Chloride	4 %
CAS-No. : 12125-02-9	
EC-No. : 235-186-4	
Hazard Classification: Xn (as raw material)	
Risk Code: R22, 36	
R22 : Harmful if swallowed	
R36 : Irritating to eyes	
Brij 35 P	5 %
Polyethylene glycol dodecyl ether	
CAS-No. : 9002-92-0	
EC-No. : 500-002-6	
Hazard Classification: Xn (as raw material)	
Risk Code: R22, 38, 41	
R22 : Harmful if swallowed	
R38 : Irritating to skin	
R41 : Risk of serious damage to eyes	
Glycerol	79 %
CAS-No. : 56-81-5	
EC-No. : 200-289-5	
Hazard Classification: N/A (as raw material)	
Risk Code: N/A	

SECTION 3 : CRITICAL HAZARDS

Potential health effects

Eyes : Direct eye contact may cause redness and irritation. Avoid contact with eyes.

Skin : Prolonged or repeated contact may cause skin irritation. Avoid contact with skin.

Ingestion : No information found, but compound should be handled as potential health hazard.

Inhalation : Inhalation of vapors or mists may irritate respiratory tract.

SECTION 4 : EMERGENCY FIRST AID PROCEDURES

Eye contact : In case of eye contact, flush eyes with plenty of water for at least 15 minutes. Ensure adequate flushing by separating the eyelids with fingers. Obtain medical attention if irritation persists.

Skin contact : Wash exposed area with soap and water. If skin is broken or material enters an open wound, obtain medical attention.

Ingestion : Flush mouth with water, without swallowing. Obtain medical attention or contact the local Poison Control Center.

Inhalation : Remove individual to fresh air. Obtain medical attention.

SECTION 5 : FIRE AND EXPLOSION HAZARD DATA

Extinguishing media : Use any extinguishing agent, which is suitable for the surrounding fire.

Fire fighting instructions : Wear self-contained breathing apparatus and protective clothing that is appropriate for fighting a typical fire involving chemical materials.



SECTION 6 : SPILL OR LEAK PROCEDURES

Wear appropriate personal protective equipment as specified in Section 8.

Clean up spills in a manner that does not disperse dust into the air or create aerosols of prepared solutions. Dry spills should be moistened with water or an EPA approved disinfectant. Contain spill and decontaminate the area. Pick up material and dispose in biohazard/sharps container as appropriate.

Do not empty into drains.

SECTION 7 : HANDLING AND STORAGE

Handling and storage precautions : Reference the product labeling for handling and storage instructions.

Special requirements : Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

Work/hygienic practices : Wash hands with soap and water after use.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

The product does not contain great amounts of dangerous substance. The threshold limit value (TLV) does not have to be under control for the export to people in the workplace.

Eye/Face protection : Safety glasses or splash goggles are recommended.

Skin protection : Wear protective (latex/non-latex) gloves and laboratory coat as required to prevent skin contact.

Respiratory protection : None normally required with adequate ventilation.

Airborne exposure limits :

- OSHA Permissible exposure limit (PEL) :
10 mg/m³ total dust, 5 mg/m³ respirable fraction for glycerin (mists).
- ACGIH Threshold limit value (TLV) :
10 mg/m³ for glycerin mist containing no asbestos and <1 % crystalline silica.

Other/general protection : None normally required.

SECTION 9 : PHYSICAL AND CHEMICAL DATA

Cal 1, Cal 2, and Reference Solution

Appearance : Liquid

Color : Colorless

Odor : Odorless

Density : N/A

pH : N/A

Vapor Pressure : N/D

Specific Gravity : N/D

Solubility (H₂O) : Complete

Evaporation Rate : N/D

Viscosity : N/D

Boiling Point (°C) : N/D

Melting Point (°C) : N/D

Flash Point : N/A

Lower Explosive Limit (%) : N/A



Upper Explosive Limit (%) : N/A

Fire and Explosion Hazards : N/A

SECTION 10 : STABILITY AND REACTIVITY DATA

Stability : Stable under ordinary conditions of use and storage.

Incompatible materials : Strong oxidizer, strong bases.

Hazardous decomposition products : May emit carbon oxides, nitrogen oxides and sulfur oxides when heated to decomposition.

Hazardous polymerization : Will not occur.

SECTION 11 : TOXICOLOGICAL INFORMATION

Miscellaneous toxicological information :

- MOPS, Sodium Salt : LD50 - N/A, LC50 - N/A
- MOPS, Free Acid : LD50 - N/A, LC50 - N/A
- Calcium Chloride : LD50 Oral - rat - 1.000 mg/kg, LD50 Oral - rabbit - 500 ~ 1.000 mg/kg
- MIT : toxicological properties have not thoroughly investigated.
- Silver Nitrate : LD50 Oral - rat - 1.173 mg/kg.
- Ammonium Chloride : LD50 - rat - 1.440 mg/kg.
- Brij 35 P : LD50 Oral - rat - 1.000 mg/kg
- Glycerol : LD50 Oral - rat - 12.600 mg/kg, LD50 Dermal - rabbit - > 10.000 mg/kg

The health effects noted above are based on the extrapolation of data on the pure product ingredients. To the best of our knowledge, no health effects have been identified for the product mixture under normal conditions of use, although the health effects of the product have not been thoroughly investigated.

Medical conditions aggravated by exposure : None known.

SECTION 12 : ECOLOGICAL INFORMATION

Other environmental information : No ecotoxicological data are available for this product.

SECTION 13 : DISPOSAL CONSIDERATIONS

The product waste is classified as non-toxic and harmful.

It is up to the user to classify the waste correctly prior to disposal. Dispose of in accordance with local regulations. Following use with blood, cartridges should be handled as contaminated material and dispose in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.

SECTION 14 : TRANSPORTATION (IATA Regulations)

Proper Shipping Name : N/A

UN Number : N/A

Hazard Class Number : N/A

Packaging Group : N/A



SECTION 15 : OTHER REGULATORY INFORMATION

This product is classified and labeled in accordance with Directive 1999/45/EC and following modifications. The health hazard classification has been determined based on composition and hazard data of each ingredient. Physical and health hazard information on the reagent mixture has not been determined. Any physical and health hazard information noted is based on a) evaluation of data of the pure ingredient and b) concentration of each ingredient.

Cartridge Hazard Classification

- EEC Symbol : N/A

- Risk Code : N/A

- Safety Code : S24/25, 29, 36

S24/25 : Avoid contact with skin and eyes

S29 : Do not empty into drains

S36 : Wear suitable protective clothing

SECTION 16: OTHER INFORMATION

Other Comments : N/D = Not Determined, N/A = Not Applicable

DISCALIMER

The information, data and recommendations contained herein are based upon information believed by i-SENS, Inc. ("i-SENS"), after reasonable investigation and research, to be accurate; however, i-SENS does not warrant the accuracy of this information. All materials and mixtures may present unknown hazards and should be used with caution. When necessary or appropriate, independent opinions regarding the risk of handling or exposure should be obtained from trained professionals. i-SENS disclaims any warranty against patent infringement and the implied warranties of merchantability and fitness for a particular purpose. Customer's sole and exclusive remedy shall be replacement of the product or return of the product and refund of the purchase price, at i-SENS'



option. In no case shall i-SENS be liable for incidental or consequential damages, including lost profits.