



# MSDS

## MATERIAL SAFETY DATA SHEET



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## SECTION 1 – PRODUCT IDENTIFICATION

**Product name:** Spectra

**Designation/ Application/**

**Intended use:** Coloring liquid for shading of zirconia CAD/CAM blocks

**Producer/ Supplier;** Acucera, Inc.

111 Eumgogae-gil, Pochon-si

Gyeonggi-do, 11192

Korea

Phone number: +82-31-531-6940

Fax number: +82-31-531-6945

## SECTION 2 – CHEMICAL COMPOSITION

Materials	CAS#	%Weight
Iron nitrate	7782-61-8	2.00-2.05
Manganese Sulfate	20694-39-7	0.00-0.01
Aluminum nitrate	7784-27-2	1.00-1.50
Cobalt nitrate	10026-22-9	0.00-0.01
Water(H <sub>2</sub> O)	7732-18-5	97.00-96.43

**Hazardous Components:** None

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

## SECTION 3 – HAZARDS IDENTIFICATION



**Hazard designation:** Not hazardous according to 99/45/ECC  
**Hazard information to men and environment:** N/A  
**Additional information:** Do not inhale or drink liquid.

Potential Health Effects: May cause mild irritation to eyes, respiratory system or skin.

#### SECTION 4 – FIRST AID MEASURES

**General information:** No special measures needed.  
**After inhalation:** Breathe fresh air. If irritation occurs or persists, consult a physician.  
**After skin contact:** Rinse thoroughly with warm water and soap. If irritation occurs or persists, consult a physician.  
**After eye contact:** Rinse open eye for several minutes under running water. If symptoms persist, consult a physician.  
**After swallowing:** Do not induce vomiting. Rinse mouth thoroughly with water if the person is conscious.  
**Information for the physician:** N/A.

#### SECTION 5 – FIRE-FIGHTING MEASURES

**Flammability:** No special fire fighting measures required.  
**Flash point:** N/A  
**Non suitable extinguishing agent:** Not known  
**Further information:** N/A

#### SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Person related safety measures:** Use a protective mask and gloves.  
**Environmental safety measures:** No environmental hazard at intended use and disposal properly.  
**Cleaning/ absorption:** Sweep up and remove the extra liquid.  
**Additional information:** None for the product in liquid form.

#### SECTION 7 – HANDLING AND STORAGE

**Safe handling procedures:** No special measure required for the product in liquid form.  
**Storage requirements:** Keep at room temperature and avoid humidity.  
**Incompatible materials:** Strong acids  
**Special packaging materials:** Use shock absorbing materials.

## SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Permissible exposure:** 5 mg/cm<sup>3</sup>  
**Personal Protective Equipment:**  
**Eye protection:** Glasses.  
**Skin protection:** Rubber gloves.  
**Respiratory Protection:** Masks.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

**Physical form, color and odor:** Liquid  
**Odor threshold:** N/A  
**pH:** N/A  
**Boiling point:** 100 °C  
**Melting point/freezing point:** N/A  
**Vapor pressure:** N/A  
**Solubility in water:** Soluble in water  
**Coefficient of oil/water distribution:** N/A  
**Specific gravity or relative density (water=1):** 0.998g/cm<sup>3</sup>  
**Vapor density:** N/A  
**Volatile organic compounds (VOC's):** None  
**Evaporation rate:** N/A

## SECTION 10 – REACTIVITY AND STABILITY DATA

**Stability and reactivity:** Chemically stable  
**Conditions avoid:** N/A  
**Materials to avoid:** None  
**Hazardous decomposition products:** None

## SECTION 11 – TOXICOLOGICAL INFORMATION

There is no toxic reaction known at intended use. Inhaling or drinking liquid can cause irritations and contact with skin may cause irritations.

## SECTION 12 – ECOLOGICAL INFORMATION

No environmental hazard at intended use.

## SECTION 13 – WASTE DISPOSAL

**Handling for disposal:** N/A

**Methods of disposal:** N/A

## SECTION 14 – TRANSPORTATION INFORMATION

This product is not classified as a hazardous material for any type of transportation.

This is non hazardous material based on IATA regulation.

## SECTION 15 – REGULATORY INFORMATION

The usual precaution for the use of chemical substances should be taken. According to EC rules the product is not subject to declaration.

## SECTION 16 – OTHER INFORMATION

This safety data sheet is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish legally valid contractual relationship.

We cannot guarantee or give a warranty for the accuracy, dependability and completeness of this information, explicitly or implicitly. We call upon any person getting this information to urgently check and verify the adequacy and completeness for her or his special application.

**Other information:**

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**Preparation date:** June 10, 2015

N/A: Not applicable