

05-6000  
Crone-C

\*3-216005-00



March 31, 1996

Photographers Formulary  
P O Box 950  
Condon, MT 59826

Attn : Regulatory Compliance Department

Dear Customer:

This letter is to inform you that the product listed below that we supply you contains one or more of the toxic chemicals covered by Section 313 of the Emergency Planning and Community Right-to-Know act of 1986. This law requires certain manufacturers to report on annual emissions of specified toxic chemicals and chemical categories.

If you are unsure if you must report, or require further information, call the EPA Emergency Planning and Community Right-to-Know Hotline at (800) 535-0202 or (202) 479-2449 (in Washington or Alaska).

Please attach this letter to the Material Safety Data Sheets for these products. Please also note that if you repackage or otherwise redistribute these products to industrial customers, this letter must accompany the MSDS.

0302561	Copper Sulfate-Lrg Crystal	50#
0302571	Copper Sulfate-Fine Diam	50#
0900311	Isopropynol-Anhy Tech	54 Gal
2100202	Urea	50#
2300152	Windshield Wash	Gal

12/95

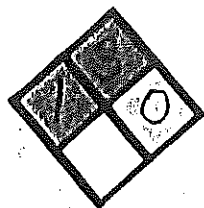
THATCHER COMPANY OF NEVADA  
P.O. Box 549  
Carlin, Nevada 89822  
(702) 754-6335  
FAX 702-754-6167

THATCHER COMPANY / LAS VEGAS DIV  
850 W. Lake Mead Drive  
Henderson, Nevada 89014  
(702) 564-7622  
FAX 702-564-2818

THATCHER COMPANY OF MONTANA  
3200 Raser Drive  
Missoula, Montana 59801  
(406) 721-3479  
FAX 406-721-3489

# Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.



## U.S. Department of Labor

Occupational Safety and Health Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072



IDENTITY (As Used on Label and List)

CRONE C: ADDITIVE A SECRET FORMULA

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

### Section I

Manufacturer's Name  
PHOTOGRAPHERS FORMULARY INC.

Emergency Telephone Number  
(800) 424-9300

Address (Number, Street, City, State, and ZIP Code)  
PO BOX 950 CONDON, MONTANA 59826

Telephone Number for Information  
(406) 754-2891

Date Prepared  
9-5-88

THE INFORMATION CONTAINED IN THIS MSDS SHEET CONTAINS ALL OF THE HAZARDS FOR THE CHEMICALS IN MIXTURE.

Signature of Preparer (optional)

### Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Mixture of five (5) chemical compounds in aqueous solution. This mixture is a trade secret. The hazards for chemicals not listed here are stated elsewhere on sheet.				
WATER		H <sub>2</sub> O		+/- 48%
ISOPROPYL ALCOHOL - ISOPROPANOL		(see attached sheets)		+/- 50%
SODIUM SULFITE		Na <sub>2</sub> S <sub>03</sub>	None established	+/- 1%
Other compounds		None established	less than .05 of each	

SEE ATTACHED SHEETS ON ISOPROPYL ALCOHOL

### Section III — Physical/Chemical Characteristics

Boiling Point	180F 82C	Specific Gravity (H <sub>2</sub> O = 1)	.786 at 20/20 C
Vapor Pressure (mm Hg.)	33mm Hg	Melting Point	96
Vapor Density (AIR = 1)	2.07	Evaporation Rate (Butyl Acetate = 1)	2.3
Solubility in Water	COMPLETE		
Appearance and Odor	WATER CLEAR		

### Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)	53F tag closed cup	Flammable Limits	LEL 2	UEL 12
Extinguishing Media	CARBON DIOXIDE ON DRY CHEMICAL			
Special Fire Fighting Procedures	NONE			
Unusual Fire and Explosion Hazards	NONE			

## Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid High temperatures, severe oxidizing conditions.
	Stable	x	Heat, sparks and open flames.

Incompatibility (Materials to Avoid)  
Anhydride, isocyanate, monomer, and organometallic contamination.

### Hazardous Decomposition or Byproducts

Burning may produce carbon monoxide and / or carbon dioxide.

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	x	

## Section VI — Health Hazard Data

Route(s) of Entry: <sup>Inhalation?</sup> Dizziness or <sup>Skin?</sup> Drunkenness May be absorbed <sup>Ingestion?</sup> May result in toxic effects.

### Health Hazards (Acute and Chronic)

CAUTION: MODERATE INGESTION HAZARD. NOT SAFE TO DRINK.

CAUTION: SLIGHT SKIN HAZARD, MAY BE ABSORBED THROUGH THE SKIN.

Carcinogenicity: NO      NTP?      IARC Monographs?      OSHA Regulated? YES

### Signs and Symptoms of Exposure

Eyes: Tearing, redness and swelling. INHALATION: Coughing, shortness of breath, dizziness and drunkenness. INGESTION: Toxic effects. SKIN: Minor burning itching redness.

Medical Conditions VERY LONG: EYES: Conjunctivitis, corneal damage. Inhalation: Irritation Generally Aggravated by Exposure or damage the pulmonary tissue. INGESTION: Toxic effects.

SKIN: Defatting of the skin

### Emergency and First Aid Procedures

EYES: Flush eyes with clean, low pressure, lukewarm water for 15 min. Inhalation: Move to fresh air, give oxygen or artificial respiration, keep victim quiet. SKIN: Wash for 5 min. INGESTION: Give luke warm water, do not induce vomiting. Get Medical help.

## Section VII — Precautions for Safe Handling and Use

### Steps to Be Taken in Case Material Is Released or Spilled

Release may cause fire/explosion. Evacuate nonessential personnel. Stop release if feasible. Notify fire and water suppliers and pollution control. Dike, impound large land fill. Absorb small spills onto inert solids, shovel into disposal containers.

### Waste Disposal Method

Landfill properly contained. Burn concentrated liquid waste in proper combustion system. Assume emissions are in compliance. All waste to be considered hazardous due to low flash point.

### Precautions to Be Taken in Handling and Storing

Store only in tightly closed containers away from heat, sparks, open flame or strong oxidizing agent. Do not store or ship in aluminum containers.

### Other Precautions

It is recommended that any non-hazardous materials contaminated with this product and intended for disposal be sent as waste Isopropanol mixture Flammable liquid UN 1219

## Section VIII — Control Measures

### Respiratory Protection (Specify Type)

Through its odor and irritant effects can be detected below PEL and TLV limits.

Ventilation	Local Exhaust	Special
	No special ventilation required	Other
	Mechanical (General)	

Protective Gloves Rubber Gloves      Eye Protection, Chemical splash goggles



### Other Protective Clothing or Equipment

Apron, head and face protection should be worn

### Work/Hygienic Practices

Emergency eyewash and safety showers should be available.

# Material Safety Data Sheet

NFPA	HMIS		Personal Protective Equipment
	Health Hazard	(2)	 See Section 15.
	Fire Hazard	(3)	
	Reactivity	(0)	

## Section 1. Chemical Product and Company Identification

Common Name/ Trade Name	<b>Isopropyl alcohol</b>	Code	P4730
Manufacturer	SPECTRUM CHEMICAL MFG. CORP. 14422 SOUTH SAN PEDRO STREET GARDENA, CALIFORNIA 90248-9985	CAS#	67-63-0
Commercial Name(s)	Not available	RTECS	NT8050000
Synonym	2-Propanol	TSCA	On the TSCA list.
Chemical Name	isopropanol	CI#	Not available.
Chemical Family	Not available.	<u>In case of emergency</u>	
Chemical Formula	C3H8O	CHEMTREC (24hr) 800-424-9300	
Supplier	SPECTRUM QUALITY PRODUCTS 14422 S. SAN PEDRO STREET GARDENA, CA 90248-9985	Emergency phone: (310) 516-8000	

## Section 2. Composition and Information on Ingredients

Name	CAS#	Exposure Limits			% by Weight
		TWA (mg/m3)	STEL (mg/m3)	CEIL (mg/m3)	
Isopropyl alcohol	67-63-0				100

Toxicological Data on Ingredients      Isopropyl alcohol:

## Section 3. Hazards Identification

**Potential Acute Health Effects**      Very dangerous in case of eye contact (irritant), of ingestion. Slightly dangerous to dangerous in case of skin contact (irritant), of inhalation. Very slightly to slightly dangerous in case of skin contact (permeator). This product is an eye irritant. This product may irritate eyes and skin upon contact. Inflammation of the eye is characterized by redness, watering, and itching.

**Potential Chronic**      CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. The substance is toxic to kidneys, lungs, the nervous system, mucous

**Health Effects**

membranes. Toxicity of the product to the reproductive system: Not available. Repeated or prolonged exposure to the substance can produce target organs damage.

**Section 4. First Aid Measures**

<b>Eye Contact</b>	Check for and remove any contact lenses. IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. COLD water may be used. DO NOT use an eye ointment. Seek medical attention.
<b>Skin Contact</b>	If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical touches the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. COLD water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.
<b>Hazardous Skin Contact</b>	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.
<b>Inhalation</b>	Allow the victim to rest in a well ventilated area. Seek immediate medical attention.
<b>Hazardous Inhalation</b>	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.
<b>Ingestion</b>	Remove dentures if any. Watch for an obstruction in the victim's mouth. Remove if possible what is causing the obstruction but do not force fingers or a hard object between the victim's teeth. Have conscious person drink several glasses of water or milk. INDUCE VOMITING by sticking finger in throat. Seek immediate medical attention.
<b>Hazardous Ingestion</b>	Remove dentures if any. Watch for an obstruction in the victim's mouth. Remove if possible what is causing the obstruction but do not force fingers or a hard object between the victim's teeth. If a soft pad can be inserted between the victim's teeth, it will protect the tongue from being bitten. A badly bleeding tongue immensely complicates the patient's problems. Have conscious person drink several glasses of water or milk. INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. If convulsions occur, do not restrain the victim, but do remove objects with which he (she) might injure himself (herself) or orient the victim to prevent him (her) from striking fixed heavy objects. If the convulsions cease, turn the victim on the side or face down so that any fluid in the mouth will drain. Seek medical attention.

**Section 5. Fire and Explosion Data**

<b>Flammability of the Product</b>	Flammable.
<b>Auto-Ignition Temperature</b>	399.C (750.2.F)
<b>Flash Points</b>	CLOSED CUP: 11.67.C (53.F) (TAG) OPEN CUP: 18.3.C (64.9.F) (Cleveland)
<b>Flammable Limits</b>	LOWER: 2% UPPER: 12%

<b>Products of Combustion</b>	These products are carbon oxides (CO, CO <sub>2</sub> ).
<b>Fire Hazards in Presence of Various Substances</b>	Slightly flammable to flammable in presence of open flames and sparks, of oxidizing materials.
<b>Explosion in Presence of Various Substances</b>	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. Very slightly to slightly explosive in presence of oxidizing materials.
<b>Fire Fighting Media and Instructions</b>	Flammable liquid, soluble or dispersed in water. <b>SMALL FIRE:</b> Use DRY chemicals, CO <sub>2</sub> , alcohol foam or water spray. <b>LARGE FIRE:</b> Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
<b>Special Remarks on Fire Hazards</b>	No additional remark.
<b>Special Remarks on Explosion Hazards</b>	No additional remark.

#### Section 6. Accidental Release Measures

<b>Small Spill</b>	Dilute with water and mop up, or absorb with an inert DRY material and place in an appropriate waste disposal container.
<b>Large Spill</b>	Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. DO NOT touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition.

#### Section 7. Handling and Storage

<b>Precautions</b>	Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.
<b>Storage</b>	Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Ground all equipment containing material. A refrigerated room would be preferable for materials with a flash point lower than 37.8.C (100.F).

#### Section 8. Exposure Controls/Personal Protection

<b>Engineering Controls</b>	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work-station location.
<b>Personal Protection</b>	Splash goggles. Lab coat. Vapor respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Gloves (impervious). Wear appropriate respirator when ventilation is inadequate.
<b>Personal</b>	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus

Protection in  
Case of a  
Large Spill

sufficient; consult a specialist BEFORE handling this product.

Exposure  
Limits

TWA: 400 STEL: 500 (ppm) from ACGIH [1995] TWA: 980 STEL: 1230 (mg/m ) from ACGIH [1995] Consult local authorities for acceptable exposure limits.

**Section 9. Physical and Chemical Properties**

Physical state and appearance	Liquid.	Odor	Not available.
Molecular Weight	60.1	Taste	Not available.
pH (1% soln/water)	7	Color	Not available.
Boiling Point	82.22.C (180.F)		
Melting Point	-89.5.C (-129.1.F)		
Critical Temperature	Not available.		
Specific Gravity	0.7855 (Water = 1)		
Vapor Pressure	33 mm of Hg (@ 20.C)		
Vapor Density	2.07 (Air = 1)		
Volatility	Not available.		
Odor Threshold	50 ppm		
Evaporation rate	Not available.		
Viscosity	Not available.		
Water/Oil Dist. Coeff.	1		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water, methanol, diethyl ether, n-		
Solubility	Easily soluble in cold water, hot water, methanol, diethyl ether, n-octanol, acetone.]		

**Section 10. Stability and Reactivity Data**

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	No additional remark.
Incompatibility with Various Substances	No specific information is available in our database regarding the reactivity of this material in presence of various other materials.
Corrosivity	No specific information is available in our database regarding the corrosivity of this product in presence of various materials.
Special Remarks on Reactivity	No additional remark.
Special Remarks on Corrosivity	No additional remark.

**Section 11. Toxicological Information**

Routes of Entry	Ingestion, Inhalation.
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**Toxicity to Animals**

WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 3600 mg/kg (Mouse). Acute dermal toxicity (LD50): 12800 mg/kg (Rabbit). Acute toxicity of the vapor (LC50): 22627 ppm (Rat).

**Chronic Effects on Humans**

The substance is toxic to kidneys, lungs, the nervous system, mucous membranes. Toxicity of the product to the reproductive system: Not available.

**Other Toxic Effects on Humans**

Very dangerous in case of eye contact (irritant), of ingestion. Slightly dangerous to dangerous in case of skin contact (irritant), of inhalation. Very slightly to slightly dangerous in case of skin contact (permeator).

**Special Remarks on Toxicity to Animals**

No additional remark.

**Special Remarks on Chronic Effects on Humans**

Detected in maternal milk in human.

**Special Remarks on other Toxic Effects on Humans**

No additional remark.

**Section 12. Ecological Information****Ecotoxicity**

Not available.

**BOD5 and COD**

Not available.

**Products of Biodegradation**

These products are carbon oxides (CO, CO2).

**Toxicity of the Products of Biodegradation**

The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation**

No additional remark.

**Section 13. Disposal Considerations****Waste Disposal**

Recycle to process, if possible. Consult your local or regional authorities.

**Section 14. Transport Information****DOT Classification**

DOT CLASS 3: Flammable liquid.

**Identification**

Isopropanol UN1219 II

**Special Provisions for Transport**

No additional remark.

**DOT (Pictograms)**



Section 15. Other Regulatory Information and Pictograms

**Federal and State Regulations**

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). Components present in this product at a level which could require reporting under the statute are:

NONE

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual report release of toxic chemicals that appear in 40 CFR 372 (used for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material. Components present in this product at a level which could require reporting under the statute are:

NONE

WARNING: This product contains a chemical known to the State of California to cause cancer. Chemical ingredient(s) requiring this warning:

NONE

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. Chemical ingredient(s) requiring this warning: NONE

**Other Classifications**

**WHMIS (Canada)**

WHMIS CLASS B-2: Flammable liquid with a flash point lower than 37.8.C (100.F).  
WHMIS CLASS D-2B: Material causing other toxic effects (TOXIC).

**DSCL (EEC)**

R12- Extremely flammable.  
R42- May cause sensitization by inhalation.  
R36/37- Irritating to eyes and respiratory

Other Classifications

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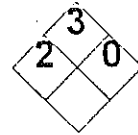
R12- Extremely flammable.  
 R42- May cause sensitization by inhalation.  
 R36/37- Irritating to eyes and respiratory system.

HMIS (U.S.A.)

Health Hazard	1
Fire Hazard	3
Reactivity	0
Personal Protection	0

National Fire Protection Association (U.S.A.)

Health



Flammability

Reactivity

Specific hazard

Personal Protective Equipment



Protective Gloves (impervious).



Lab coat.



Vapor respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.



Splash goggles.

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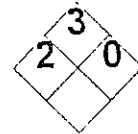
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**HMIS (U.S.A.)**

Health Hazard	1
Fire Hazard	3
Reactivity	0
Personal Protection	0

National Fire Protection Association (U.S.A.)

Health



Flammability  
 Reactivity  
 Specific hazard

**Personal Protective Equipment**



Protective Gloves (impervious).



Lab coat.



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