

**MATERIAL SAFETY DATA SHEET  
FOR  
THORN SMITH LABORATORIES**

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Calcein (Fluorescein Complexone) Indicator Tablets  
*in KCl*  
Catalog# 88-3010

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**SECTION I – MATERIAL IDENTIFICATION AND INFORMATION**

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Primary Use: As an indicator for the determination of lime in refractory materials.

COMPONENTS – Chemical Name & Common Names

(Hazardous Components 1% or greater; Carcinogens 0.1% or greater)

Potassium Chloride 99.5%

Formula: KCl

CAS No.: 7447-40-7

OSHA PEL: According to our sources, exposure threshold levels have not be established. (N/E)

Calcein (Fluorescein Complexone) 0.4%

CAS No.: 1461-15-0

OSHA PEL: According to our sources, exposure threshold levels have not be established. (N/E)

Thymolphthalein 0.1%

CAS No.: 125-20-2

OSHA PEL: According to our sources, exposure threshold levels have not be established. (N/E)

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## SECTION II – PHYSICAL/CHEMICAL CHARACTERISTICS

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Boiling Point:	N/A
Specific Gravity (H <sub>2</sub> O=1) @ 55°C:	N/A
Vapor Pressure (mm Hg and Temperature):	N/A
Melting Point:	790°C
Vapor Density (Air=1):	N/A
Evaporation Rate (___=1):	N/A
Solubility in Water:	N/A
Water Reactive:	No
Appearance and Odor:	Light brown tablets, having no odor.

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## SECTION III – FIRE AND EXPLOSION HAZARD DATA

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Flash Point and Method Used:	N/A
Auto-Ignition Temperature:	N/A
Flammability Limits in Air (% by Volume):	Non-combustible.
LEL: N/A	UEL: N/A
Extinguisher Media:	Water spray. Carbon Dioxide, dry chemical powder or appropriate foam.
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.
Unusual Fire and Explosion Hazards:	N/A
Toxic Gases Produces:	May evolve irritant or toxic fumes in fire.

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## SECTION IV – REACTIVITY HAZARD DATA

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This material is highly hygroscopic above 75% relative humidity.

STABILITY:	<input checked="" type="checkbox"/> Stable	<input type="checkbox"/> Unstable
Conditions to Avoid:	None identified.	
Incompatibility (Materials to Avoid):	Hydrogen chloride gas is evolved with sulfuric and nitric acids.	
Hazardous Decomposition Products:	N/A	
HAZARDOUS POLYMERIZATION:	<input type="checkbox"/> May Occur	<input checked="" type="checkbox"/> Will Not Occur

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## SECTION V – HEALTH HAZARD DATA

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### PRIMARY ROUTES OF ENTRY:

Inhalation     Ingestion     Skin Contact     Eye Contact  
 Not Hazardous

### CARCINOGENS LISTED IN:

NTP     OSHA     IARC Monograph     Not Listed

TOXICITY: Low

### HEALTH HAZARDS – Acute and Chronic:

Signs and Symptoms of Exposure: May cause irritation to skin and eyes. May cause staining. May be harmful by ingestion.

Medical Conditions Generally Aggravated by Exposure: None identified.

EMERGENCY FIRST AID PROCEDURES – Seek medical assistance for further treatment, observation, and support if necessary.

Inhalation: Remove from exposure, rest and keep warm. In severe cases, obtain medical attention.

Ingestion: Wash mouth out thoroughly with water and give plenty to drink. Obtain medical attention.

Skin Contact: Remove any contaminated clothing and shoes. Flush with copious amounts of water for at least 15 minutes. In severe cases, obtain medical attention.

Eye Contact: Irrigate with copious amounts of water for at least 10 minutes. Assure adequate flushing by separating the eyelids with fingers. If discomfort persists obtain medical attention.

### SARA TITLE III HAZARD CATEGORIES AND LISTS

Acute: Yes    Chronic: No    Flammability: No    Pressure: No

Reactivity: Hydrogen chloride gas is evolved with sulfuric and nitric acids.

Extremely Hazardous Substance: No

CERCLA Hazardous Substance: No

SARA 313 Toxic Chemicals: No

TSCA Inventory: No

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## SECTION VI – CONTROL AND PROTECTIVE MEASURES

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Respiratory Protection (Specify Type): NIOSH/MSHA-approved Respirator: mechanical exhaust.

Protective Gloves: Wear compatible chemical-resistant gloves.

Eye Protection: Wear chemical safety goggles.

Ventilation to be used: Use only with a chemical fume hood.

Local Exhaust     Mechanical (General)     Special

\_\_\_\_ Other

Other protective clothing and equipment: Wear clean body-covering clothing.

Emergency eyewash should be available.

Hygienic Work Practices: Avoid contact with eyes, skin, and clothing. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling and before eating, drinking, or smoking.

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## SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE/LEAK PROCEDURES

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Steps to be taken if material is spilled or released: Wear protective equipment. Ventilate area and wash spill site after material pick-up is complete. Sweep up, place in bag and hold for waste disposal.

Waste Disposal Methods: Chemical residues are generally classified as special waste, and as such are covered by Federal, State, and Local regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company. Rinse out empty containers thoroughly before recycling.

Precautions to be taken in handling and storage: Keep in tightly closed container. Polythene and stainless steel are also suitable as storage media, but aluminum, brass, tin and zinc are not. Store in accordance with all applicable local, state and federal environmental regulations.

Other precautions and/or special hazards: Keep away from strong acids.

NFPA Rating: Health: **0** Flammability: **0** Reactivity: **0**.

HMIS Rating: No information found.

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## SECTION VIII – TRANSPORTATION DATA AND ADDITIONAL INFORMATION

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Domestic (D.O.T.)

Proper Shipping Name: Chemicals, n.o.s. (Non-regulated)

The information published in this Material Safety Data Sheet has been compiled from our experience and data presented in various technical publications. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions. We make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and assume no liability resulting from its use. We reserve the right to revise Material Safety Data Sheets periodically as new information becomes available.