



J.T. Baker Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865

24-Hour Emergency Telephone 908-859-2151  
National Response Center 800-424-8802  
Chemtrec 800-424-9300

National Response In Canada

CANUTEC 613-996-6666

Outside U.S. and Canada

Chemtrec 202-483-7616

**MATERIAL SAFETY DATA SHEET**

FICHE  
SIGNALÉTIQUE

HOJAS DE DATOS  
DE SEGURIDAD

**NOTE:** CHEMTREC, CANUTEC and National Response Center emergency numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals. All non-emergency questions should be directed to Customer Service (1-800-JTBAKER) for assistance.

C5060 -04  
Effective: 04/06/92

Collodion

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J.T.BAKER INC., 222 Red School Lane, Phillipsburg, NJ 08865

SECTION I - PRODUCT IDENTIFICATION

Product Name: Collodion  
Common Synonyms: Pyroxylin Solution; Nitrocellulose Solution; Nitrocotton Solution  
Chemical Family: Nonaqueous Solutions  
Formula: Mixture: Pyroxylin + Ethanol + Diethyl Ether  
Formula Wt.: N/A  
CAS No.: 9004-70-0  
NIOSH/RTECS No.: QW0970000  
Product Use: Laboratory Reagent  
Product Codes: 9202

PRECAUTIONARY LABELING

BAKER SAF-T-DATA\* System

HEALTH <b>2</b> MODERATE	FLAMMABILITY <b>4</b> EXTREME	REACTIVITY <b>1</b> SLIGHT	CONTACT <b>0</b> NONE
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Laboratory Protective Equipment

 GOGGLES	 LAB COAT	 VENT HOOD	 PROPER GLOVES	 EXTIN-GUISHER
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U.S. Precautionary Labeling

**DANGER!**

CAUSES IRRITATION. EXTREMELY FLAMMABLE. HARMFUL IF SWALLOWED OR INHALED. Keep away from heat, sparks, flame. Avoid contact with eyes, skin, clothing. Avoid breathing vapor. Keep in tightly closed container. Use with adequate ventilation. Wash thoroughly after handling. In case of fire, use alcohol foam, dry chemical, carbon dioxide - water may be ineffective. In case of spill, soak up with sand or earth. Flush spill area with water.



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PRECAUTIONARY LABELING (CONTINUED)

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International Labeling

Avoid contact with eyes. After contact with skin, wash immediately with plenty of water. Keep container tightly closed.

SAF-T-DATA\* Storage Color Code: Red (flammable)

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SECTION II - COMPONENTS

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<u>Component</u>	<u>CAS No.</u>	<u>Weight %</u>	<u>OSHA/PEL</u>	<u>ACGIH/TLV</u>
Pyroxylin	9004-70-0	5-10	N/E	N/E
Ethanol	64-17-5	20-30	1000 ppm	1000 ppm
Diethyl Ether	60-29-7	60-70	400 ppm	400 ppm

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SECTION III - PHYSICAL DATA

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Boiling Point: 34°C (93°F)  
(at 760 mm Hg)

Vapor Pressure (mmHg): N/A

Melting Point: N/A

Vapor Density (air=1): N/A

Specific Gravity: 0.77  
(H<sub>2</sub>O=1)

Evaporation Rate: N/A

Solubility(H<sub>2</sub>O): Negligible (<0.1%)

% Volatiles by Volume: ~95  
(21°C)

pH: N/A

Odor Threshold (ppm): N/A

Physical State: Liquid

Coefficient Water/Oil Distribution: N/A

Appearance & Odor: Light yellow viscous liquid. Ether-like odor.



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SECTION IV - FIRE AND EXPLOSION HAZARD DATA

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Flash Point (Closed Cup): -44°C (-49°F)      NFPA 704M Rating: 1-4-0

Autoignition Temperature: N/A

Flammable Limits:    Upper - 36.0 %      Lower - 2.0 %

Fire Extinguishing Media

Use alcohol foam, dry chemical or carbon dioxide. (Water may be ineffective.)

Special Fire-Fighting Procedures

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Move containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool.

Unusual Fire & Explosion Hazards

Vapors may flow along surfaces to distant ignition sources and flash back. Closed containers exposed to heat may explode. Contact with strong oxidizers may cause fire.

Toxic Gases Produced

oxides of nitrogen, hydrogen cyanide, carbon monoxide, carbon dioxide

Explosion Data-Sensitivity to Mechanical Impact

None identified.

Explosion Data-Sensitivity to Static Discharge

None identified.

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SECTION V - HEALTH HAZARD DATA

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Threshold Limit Value (TLV/TWA): 1200 mg/m<sup>3</sup> (400 ppm)

TLV is for Ethyl ether.

Short-Term Exposure Limit (STEL): 1500 mg/m<sup>3</sup> (500 ppm)

STEL is for Ethyl ether.

Permissible Exposure Limit (PEL): 1200 mg/m<sup>3</sup> (400 ppm)



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SECTION U - HEALTH HAZARD DATA (CONTINUED)

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PEL is for Ethyl ether.

Toxicity of components

Oral Rat LD <sub>50</sub> for Ethanol	7060 mg/kg
Intraperitoneal Rat LD <sub>50</sub> for Ethanol	4070 mg/kg
Intravenous Rat LD <sub>50</sub> for Ethanol	1440 mg/kg
Inhalation-4Hr Mouse LC <sub>50</sub> for Ethanol	39 g/m <sup>3</sup>
Oral Rat LD <sub>50</sub> for Diethyl Ether	1215 mg/kg
Intravenous Mouse LD <sub>50</sub> for Diethyl Ether	996 mg/kg
Intraperitoneal Mouse LD <sub>50</sub> for Diethyl Ether	2420 mg/kg
Inhalation-2Hr Rat LC <sub>50</sub> for Diethyl Ether	73.0 ppt
Carcinogenicity: NTP: No IARC: No Z List: No OSHA Reg: No	

Carcinogenicity

None identified.

Reproductive Effects

None identified.

Effects of Overexposure

INHALATION:	irritation of nose and throat, headache, nausea, vomiting, dizziness, narcosis, respiratory failure, low blood pressure, central nervous system depression
SKIN CONTACT:	irritation
EYE CONTACT:	irritation
SKIN ABSORPTION:	none identified
INGESTION:	none identified
CHRONIC EFFECTS:	none identified

Target Organs

none identified



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SECTION V - HEALTH HAZARD DATA (CONTINUED)

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Medical Conditions Generally Aggravated by Exposure

none identified

Primary Routes of Entry

inhalation, skin contact, eye contact

Emergency and First Aid Procedures

INGESTION: CALL A PHYSICIAN. If swallowed, do NOT induce vomiting.

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

SKIN CONTACT: In case of contact, flush skin with water.

EYE CONTACT: In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

SARA/TITLE III HAZARD CATEGORIES and LISTS

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

Extremely Hazardous Substance: No

CERCLA Hazardous Substance: Yes Contains Ethane, 1,1'-oxybis (RQ = 100 LBS)

SARA 313 Toxic Chemicals: No

TSCA Inventory: Yes

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SECTION VI - REACTIVITY DATA

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Stability: Stable Hazardous Polymerization: Will not occur

Conditions to Avoid: heat, flame, other sources of ignition, light, shock

Incompatibles: strong oxidizing agents, strong acids, strong bases, amines

Decomposition Products: oxides of nitrogen, hydrogen cyanide, carbon monoxide, carbon dioxide



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SECTION VII - SPILL & DISPOSAL PROCEDURES

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Steps to be Taken in the Event of a Spill or Discharge

Wear self-contained breathing apparatus and full protective clothing. Shut off ignition sources; no flares, smoking or flames in area. Stop leak if you can do so without risk. Use water spray to reduce vapors. Take up with sand or other non-combustible absorbent material and place into container for later disposal. Flush area with water.

J. T. Baker SOLUSORB<sup>R</sup> solvent adsorbent is recommended for spills of this product.

Disposal Procedure

Dispose in accordance with all applicable federal, state, and local environmental regulations.

EPA Hazardous Waste Number: D001 (Ignitable Waste)

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SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT

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Ventilation: Use general or local exhaust ventilation to meet TLV requirements.

Respiratory Protection: Respiratory protection required if airborne concentration exceeds TLV. At concentrations up to 1000 ppm, a chemical cartridge respirator with organic vapor cartridge is recommended. Above this level, a self-contained breathing apparatus is recommended.

Eye/Skin Protection: Safety goggles, rubber gloves are recommended.

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SECTION IX - STORAGE AND HANDLING PRECAUTIONS

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SAF-T-DATA\* Storage Color Code: Red (flammable)

Storage Requirements

Keep container tightly closed. Store in a cool, dry, well-ventilated, flammable liquid storage area. Store in light-resistant containers.

Special Precautions

Bond and ground containers when transferring liquid.



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SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

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Domestic (D.O.T.)

Proper Shipping Name: Nitrocellulose, solution, flammable (with not more than 12.6 percent nitrogen, by mass)  
 Hazard Class: 3 (flammable liquid)  
 UN/NA: UN2059  
 Labels: FLAMMABLE LIQUID  
 Regulatory References: 49CFR 172.101  
 Packaging Group: II

International (I.M.O.)

Proper Shipping Name: Nitrocellulose, solution, flammable (with not more than 12.6 percent nitrogen, by mass)  
 Hazard Class: 3.2  
 UN: UN2059 Marine Pollutants: No  
 Labels: FLAMMABLE LIQUID  
 Regulatory References: 49CFR 172.12(b); IMDG Code  
 I.M.O. Page: 3265  
 Packaging Group: II

AIR (I.C.A.O.)

Proper Shipping Name: Nitrocellulose, solution, flammable (with not more than 12.6 percent nitrogen, by mass)  
 Hazard Class: 3 (flammable liquid)  
 UN: UN2059  
 Labels: FLAMMABLE LIQUID  
 Regulatory References: 49CFR 172.101; ICAO=== We believe the transportation data and references contained herein to be factual and the opinion of qualified experts. The data is meant as a guide to the overall classification of the product and is not package size specific, nor should it be taken as a warranty or representation for which the company assumes legal responsibility.=== The information is offered solely for your consideration, investigation, and verification. Any use of the information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations. See shipper requirements 49CFR 172.3 and employee training 49CFR 173.1.  
 Packaging Group: II

U.S. Customs Harmonization Number: 39122000007



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N/A = Not Applicable or Not Available  
N/E = Not Established  
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The information in this Material Safety Data Sheet meets the requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and the Canadian WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. This document is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes.

Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, Baker cannot warn of all of the potential dangers of use or interaction with other chemicals or materials. Baker warrants that the chemical meets the specifications set forth on the label. BAKER DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.

The user should recognize that this product can cause severe injury and even death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Baker will periodically revise this Material Safety Data Sheet.

Note: CHEMTREC, CANUTEC, and NATIONAL RESPONSE CENTER emergency telephone numbers are to be used ONLY in the event of CHEMICAL EMERGENCIES involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to Customer Service (1-800-JTBAKER) for assistance.

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Approved by Quality Assurance Department.