



Material Safety Data Sheet
Starch indicator (w/chloroform), 0.5-1.0%

Section 1 - Chemical Product and Company Identification

MSDS Name:

Starch indicator (w/chloroform), 0.5-1.0%

Catalog Numbers:

LC25305, LC25315

Synonyms:**Company Identification:**

LabChem, Inc.
 200 William Pitt Way
 Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
67-66-3	Chloroform	<1
9005-25-8	Starch	0.5-1

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: slight opalescent

Caution! May cause eye and skin irritation. May cause liver and kidney damage.

Target Organs: none known.

Potential Health Effects**Eye:**

Eye contact may cause stinging, irritation, blepharospasm, burning pain, lacrimation, redness.

Skin:

May cause skin irritation.



Material Safety Data Sheet

Starch indicator (w/chloroform), 0.5-1.0%

Ingestion:

Ingestion may cause burning of mouth, throat, gastrointestinal tract, nausea, vomiting, diarrhea, abdominal pain, respiratory failure.

Inhalation:

Central nervous system depression may be preceded by excitation and inebriation. 1000-2000ppm may cause dizziness, headache, nausea. 4000ppm may cause vomiting, disorientation. 15000ppm may cause rapid loss of consciousness. More than 20000ppm may cause respiratory failure, death.

Chronic:

May cause liver and kidney damage. Reproductive effects have been reported in animals. May cause conjunctivitis. Chloroform-- repeated exposure to 77-237ppm has caused lassitude, dullness, urinary frequency, gastrointestinal disturbances. Prolonged skin exposure may cause dermatitis with drying, cracking skin.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

Skin:

Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

Ingestion:

Get medical aid at once. Give oxygen if respiration is depressed. Perform gastric lavage immediately. Support cardiovascular system.

Inhalation:

Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

Negligible fire and explosion hazard when exposed to heat or flame. Move container if possible, avoid breathing vapors or dust.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:

No information found.

Flash Point:

No information found.

NFPA Rating:

CAS# 7732-18-5: Not published.

CAS# 67-66-3: Not published.

CAS# 9005-25-8: Not published.

Explosion Limits:

Lower: Upper:



Material Safety Data Sheet
Starch indicator (w/chloroform), 0.5-1.0%

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Use water spray to disperse the gas/vapor. Small spills can be absorbed with sand or other absorbent materials. Scoop up and place in suitable containers for proper disposal. Soil spill-- dig holding pond to contain spill and dike with barrier of soil or sand bags.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.

Storage:

Store in a tightly closed container. Store capped at room temperature. Protect from heat and incompatibles.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Provide local exhaust or general dilution ventilation.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Chloroform	10 ppm TWA	NIOSH Potential Occupational Carcinogen - see Appendix A	C 50 ppm; C 240 mg/m ³ ;
Starch	10 mg/m ³ TWA	total: 10 mg/m ³ TWA; respirable dust: 5 mg/m ³ TWA	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction);

OSHA Vacated PELs

Chloroform: 2 ppm TWA; 9.78 mg/m³ TWA

Starch: total dust: 15 mg/m³ TWA; respirable fraction: 5 mg/m³ TWA

Personal Protective Equipment

Eyes:

Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Not required for normal use. Firefighting-- any self-contained breathing apparatus with full facepiece operated in pressure-demand mode.



Material Safety Data Sheet
Starch indicator (w/chloroform), 0.5-1.0%

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid
Color: slight opalescent
Odor: None reported
pH: No information found.
Vapor Pressure: No information found.
Vapor Density: No information found.
Evaporation Rate: No information found.
Viscosity: No information found.
Boiling Point: > 100°C (> 212.00°F)
Freezing/Melting Point: < 0°C (< 32.00°F)
Decomposition Temperature: No information found.
Solubility in water: Soluble.
Specific Gravity/Density: 1.1
Molecular Formula: No information found.
Molecular Weight: No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Exposure to heat or flames.

Incompatibilities with Other Materials

None reported.

Hazardous Decomposition Products

Hydrogen chloride, phosgene, oxides of carbon, chlorine, oxides of chlorine.

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 67-66-3: FS9100000.

CAS# 9005-25-8: GM5090000.



Material Safety Data Sheet

Starch indicator (w/chloroform), 0.5-1.0%

LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 67-66-3:

Inhalation, rat: LC50 = 47702 mg/m³/4H

Oral, mouse: LD50 = 36 mg/kg

Oral, rat: LD50 = 908 mg/kg

Skin, rabbit: LD50 = >20 gm/kg.

CAS# 9005-25-8:

No information found.

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 67-66-3

ACGIH: A3 - Animal Carcinogen

California: carcinogen; initial date 10/1/87

NIOSH: occupational carcinogen

NTP: Suspect carcinogen

OSHA: Possible Select carcinogen

IARC: Group 2B

CAS# 9005-25-8

ACGIH: A4 - Not Classifiable as a Human Carcinogen

California: Not listed.

NIOSH: Not listed.

NTP: Not listed.

OSHA: Not listed.

IARC: Not listed.

Epidemiology:

Chloroform--

irritation-10mg/24Hr open skin-rabbit mild; 500mg/24Hr skin-rabbit mild;

148mg eye-rabbit; 20mg/24Hr eye-rabbit moderate. Toxic-- 25000ppm/5min inhalation-human LCLO; 10mg/M³/1Yr

inhalation-human TCLO; 5000mg/M³ 7min inhalation-human TCLO; ; 28gm/M³ inhalation-mouse LCLO; 59gm/M³

inhalation-rabbit LCLO; 35gm/M³/4Hr inhalation-cat LCLO;

mutagenic data (RTECS), reproductive effects data (RTECS); tumorigenic data (RTECS).

Teratogenicity:

Reproductive:

Mutagenicity

Neurotoxicity

Section 12 - Ecological Information

No information found.



Material Safety Data Sheet
Starch indicator (w/chloroform), 0.5-1.0%

Section 13 - Disposal Considerations

Dispose of in accordance with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated.

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 67-66-3 is listed on the TSCA Inventory.

CAS# 9005-25-8 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ)

CAS# 67-66-3: final RQ = 10 pounds (4.54 kg)

CERCLA/SARA Section 313

This material contains Chloroform (CAS# 67-66-3, <1%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

OSHA - Highly Hazardous

None of the components are on this list.

US State

State Right to Know

Chloroform can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

Starch can be found on the following state Right-to-Know lists: Pennsylvania, Minnesota, Massachusetts.

California Regulations

European/International Regulations

Canadian DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 67-66-3 is listed on Canada's DSL List.

CAS# 9005-25-8 is listed on Canada's DSL List.

Canada Ingredient Disclosure List

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 67-66-3 is listed on Canada's Ingredient Disclosure List.

CAS# 9005-25-8 is not listed on Canada's Ingredient Disclosure List.



Material Safety Data Sheet
Starch indicator (w/chloroform), 0.5-1.0%

Section 16 - Other Information

MSDS Creation Date: June 3, 1998

Revision Date: September 21, 2004

Information in this MSDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and LabChem Inc. assumes no liability resulting from the use of this MSDS. The user must determine suitability of this information for his application.