



Material Safety Data Sheet

Chlorpyrifos

MATERIAL IDENTIFICATION

Manufacturer/Distributor:	Strategic Diagnostics Inc. 111 Pencader Drive Newark, DE 19702
Phone Number:	1-(302) 456-6789
Trade Names and Synonyms:	Chlorpyrifos (A00143)
NFPA Ratings	Health: 2 Flammability: 0 Reactivity: 1

OSHA HAZARD DETERMINATION

Hazardous Ingredients	CAS Number	Weight Percent
Dimethylformamide DMF	68-12-2	≤ 1
Sulfuric acid Oil of Vitriol; Hydrogen Sulfate; Sulphuric acid	7664-93-9	≤ 1
1,2,6-Trihydroxyhexane Hexanetriol-1,2,6; Hexane-1,2,6-triol	106-69-4	≤ 5
Tris 2-amino-2-(hydroxymethyl) propane-1,3-diol; trimethylolaminomethane	77-86-1	≤ 3

PHYSICAL DATA

Plastic kit containing small amounts of various liquids and powders.

HAZARDOUS REACTIVITY

Instability

Stable - Reactivity not expected with the product.

FIRE AND EXPLOSION DATA

Fire and Explosion Hazards

Dimethylformamide has a flash point of 58°C.

Extinguishing Media

Use media appropriate for surrounding material.

Special Fire Fighting Instructions

Firefighters must wear appropriate protective clothing and self – contained breathing apparatus.

HEALTH HAZARD INFORMATION

Primary Route(s) of Exposure/Entry: Skin, Eyes and Mouth. Flush skin and eyes with large amounts of water. Eyelids may be lifted occasionally, until no evidence of the chemical remains. If sulfuric acid is ingested, do NOT induce vomiting. Call a physician immediately.

Signs and Symptoms of Exposure/Medical Conditions Aggravated by Exposure:

Eye exposure to concentrated sulfuric acid solution may cause severe damage, often leading to blindness. Dilute solutions produce a more transient effects from which recovery may be complete. Exposure to the mist causes eye irritation and lacrimation. Skin contact with sulfuric acid may cause severe irritation and pain, burns and vesiculation.

Sulfuric acid is corrosive and may cause severe burning pain in the mouth, throat, and abdomen followed by vomiting and diarrhea. Asphyxia may occur from swelling of the throat. Perforation of the esophagus and stomach may occur.

Dimethylformamide (DMF) may cause abdominal pain, loss of appetite, nausea, vomiting, diarrhea, increased blood pressure, and liver injury, if inhaled. Contact with eyes or skin, may cause irritation. DMF may cause with prolonged or repeated skin contact, dermatitis with the systematic effects the same as if inhaled. If ingested, seek prompt medical attention.

The toxicological properties of the kit components have not been fully defined. Contact may cause irritation of eyes, skin, and mucous membranes. If inhaled or ingested, it may cause irritation. Limit exposure to material.

Carcinogenicity: None of the components in this material is listed by IARC, NTP, OSHA, or ACGIH as a carcinogen.

Applicable Exposure Limits

Dimethylformamide
OSHA / PEL: 10 ppm
ACGIH /TLV: 10 ppm TWA 8 H, skin

Sulfuric acid
OSHA/ PEL 1 mg/m³
ACGIH/TLV 1 mg/m³

1,2,6-Trihydroxyhexane
TXDS: orl-rat LD₅₀ 15500 mg/kg
ivn-rat LD₅₀ 5600 mg/kg
skn-rbt LD₅₀ 20 gm/kg

Tris
TXDS: orl-rat LD₅₀ 5900 mg/kg
ivn-mus LD₅₀ 1210 mg/kg

FIRST AID

Inhalation	Remove from exposure. If irritation is evident, seek prompt medical attention.
Skin Contact	The compound may cause irritation. If irritation occurs, flush skin with large amounts of water. Remove contaminated clothing and shoes, wash before reuse. If irritation persists, get medical attention.
Eye Contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
Ingestion	The compound is toxic by ingestion. If sulfuric acid is ingested, do NOT induce vomiting. Call a physician immediately.

PROTECTION INFORMATION

General Control Measures and Precautions: Ventilation - Natural ventilation.

Personal Protective Equipment:	Respiratory Protection: None normally required.
	Protective Gloves: Are highly recommended.
	Eye Protection: Safety glasses are required.
	Other Protective Equipment: Lab coat or other long sleeved garment is required to limit skin exposure. Access to a safety shower and eyewash is required.

SPILL, LEAK AND DISPOSAL INFORMATION

Spill, Leak, or Release

Review FIRE AND EXPLOSION HAZARDS and SAFETY PRECAUTIONS before proceeding with clean up.

Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up. Contain spill and collect in suitable waste container. Avoid contact of materials with skin or eyes. Use adequate ventilation.

No special clean up practices are required.

Waste Disposal

Dispose of as solid waste in accordance with any applicable federal, state, and local requirements.

SHIPPING INFORMATION

DOT Proper Shipping Name Not DOT regulated.

IATA/IMO Proper Shipping Name Not restricted.

TITLE III HAZARD CLASSIFICATION

Acute	No
Chronic	No
Fire	No
Reactivity	No
Pressure	No

REGULATORY INFORMATION

OSHA HAZARD DETERMINATION: This material is not known to be hazardous as defined by OSHA's Hazard Communication Standard, 29 CFR 1910.1200

EPA DETERMINATIONS:

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, & LIABILITY ACT (CERCLA/SUPERFUND), 40 CFR 302 - This material is not known to contain hazardous substances in sufficient quantity to make it subject to CERCLA regulations.

TOXIC SUBSTANCES CONTROL ACT (TSCA), 40 CFR 710

The material is a mixture as defined by TSCA. The chemical ingredients in this material are in the Section 8(b) Chemical Substance Inventory and/or are otherwise in compliance with TSCA. In the case of ingredients obtained from other manufacturers, Strategic Diagnostics, Inc. relies on the assurance of responsible third parties in providing this statement.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261, SUBPARTS C AND D

The material, when discarded or disposed of, is not specifically listed as a hazardous waste in Federal regulations; however, it could be considered hazardous if it meets criteria for being toxic, corrosive, ignitable or reactive according to U.S. EPA definitions (40 CFR 261). This material could also become a hazardous waste if it is mixed with or comes in contact with a listed hazardous waste. If it is a hazardous waste, regulations 40 CFR 262-266 and 268 may apply.

HAZARDOUS MATERIALS TRANSPORTATION REGULATIONS, 49 CFR 171-178 - This material is not known to contain hazardous substances in sufficient quantity to make it subject to the Regulations.

FOREIGN REGULATIONS: CANADIAN HAZARDOUS PRODUCTS ACT (WHMIS)

The material is not a WHMIS Controlled Product.

STATE REGULATIONS:

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 ("PROPOSITION 65")
The material is not known to contain any ingredients (s) subject to the Act.

PENNSYLVANIA WORKER AND COMMUNITY RIGHT TO KNOW ACT

This material is not known to contain any ingredient(s) subject to the Act. Non-hazardous ingredient(s) information is withheld as trade secret in accordance with Section 11 of the Pennsylvania Worker and Community Right to Know Act.

The above data are based on tests, experience, and other information which Strategic Diagnostics Inc. believes reliable and are supplied for informational purposes only. However, some ingredients may have been purchased or obtained from third-party manufacturers. In these instances, Strategic Diagnostics, Inc., in good faith, relies on information provided by those third parties. Since conditions of use are outside our control, STRATEGIC DIAGNOSTICS INC. DISCLAIMS ANY LIABILITY FOR DAMAGE OR INJURY WHICH RESULTS FROM USE OF THE ABOVE DATA. NOTHING CONTAINED HEREIN SHALL CONSTITUTE A GUARANTEE, WARRANTY (INCLUDING WARRANTY OF MERCHANTABILITY) OR REPRESENTATION (INCLUDING FREEDOM FROM PATENT LIABILITY) BY STRATEGIC DIAGNOSTICS, INC. WITH RESPECT TO THE DATA, THE MATERIAL DESCRIBED, OR ITS USE FOR ANY SPECIFIC PURPOSE, EVEN IF THAT PURPOSE IS KNOWN TO STRATEGIC DIAGNOSTICS INC.

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