

# FLINN SCIENTIFIC, INC.

## Safety Data Sheet (SDS)

SDS #: 21.00

Revision Date: June 4, 2014

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Adipoyl Chloride/Hexane Solution

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

Signal Word **DANGER**

Pictograms



### SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Flammable liquids (Category 2). Highly flammable liquid and vapor (H225). Keep away from heat, sparks, open flames, and hot surfaces. No smoking (P210).

Hazard class: Aspiration hazard (Category 1). May be fatal if swallowed and enters airways (H304).

Hazard class: Skin corrosion or irritation (Category 1). Causes severe skin burns and eye damage (H314).

Hazard class: Serious eye damage or irritation (Category 2B). Causes eye irritation (H320).

Hazard class: Specific target organ toxicity, single exposure; Narcotic effects (Category 3). May cause drowsiness or dizziness (H336). Avoid breathing mist, vapors or spray (P261).

Hazard class: Reproductive toxicity (Category 2). Suspected of damaging fertility or the unborn child (H361).

Obtain special instructions before use (P201). Do not handle until all safety precautions have been read and understood (P202). Use personal protective equipment as required (P281).

Hazard class: Specific target organ toxicity, single exposure (Category 2). May cause damage to organs (H371). Do not eat, drink or smoke when using this product (P270).

### SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Adipoyl chloride	111-50-2	ClOC(CH <sub>2</sub> ) <sub>4</sub> COCl	183.03	4.6% (0.25M)
Hexanes (mixture of isomers)	110-54-3	C <sub>6</sub> H <sub>14</sub>	86.18	95.4%

### SECTION 4 — FIRST AID MEASURES

**If exposed or concerned:** Call a POISON CENTER or physician (P309+P313).

**If inhaled:** Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340). **If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). **If eye irritation persists:** Get medical advice or attention (P337+P313). **If on skin (or hair):** Immediately remove all contaminated clothing. Rinse skin with water (P303+P361+P353). **If skin irritation occurs:** Get medical advice or attention (P332+P313). **If swallowed:** Immediately call a POISON CENTER or physician (P301+P310). Do NOT induce vomiting (P331).

### SECTION 5 — FIRE FIGHTING MEASURES

Class IB flammable liquid due to hexanes. Dangerous fire risk.

Flash point: -23 °C Flammable limits: Lower: 1.2% Upper: 7.7% Autoignition Temperature: 250 °C

**In case of fire:** Use a tri-class dry chemical fire extinguisher (P370+P378).

**NFPA CODE**  
None  
established

### SECTION 6 — ACCIDENTAL RELEASE MEASURES

Remove all ignition sources and ventilate area. Contain the spill with sand or other inert absorbent material and deposit in a sealed bag or container. See Sections 8 and 13 for further information.

---

**SECTION 7 — HANDLING AND STORAGE**

---

Flinn Suggested Chemical Storage Pattern: Organic #3. Store with hydrocarbons, oils, esters and aldehydes. Store in a dedicated flammables cabinet. If a flammables cabinet is not available, store in Flinn Saf-Stor™ can. Keep container tightly closed (P233). Use only in a hood or well-ventilated area (P271). Use explosion-proof electrical and ventilating equipment (P241).

---

**SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION**

---

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264). Use only in a hood or well-ventilated area (P271).

Exposure guidelines: (as n-hexane) PEL 500 ppm (OSHA), TLV 500 ppm Ceiling 1000 ppm (ACGIH)

---

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

---

Colorless to slightly yellow liquid. Strong odor of hexane.

---

**SECTION 10 — STABILITY AND REACTIVITY**

---

Avoid contact with strong oxidizers, chlorine, fluorine, and magnesium perchlorate.

Shelf life: Fair, if stored safely.

---

**SECTION 11 — TOXICOLOGICAL INFORMATION**

---

Acute effects: irritation eyes, nose; nausea, headache; peripheral neuropathy: numb extremities, muscle weak; dermatitis; dizziness.

Chronic effects: Neurological hazard.

Target organs: Eyes, skin, respiratory system, central nervous system, peripheral nervous system

N.A. = Not available, not all health aspects of this substance have been fully investigated.

ORL-RAT LD<sub>50</sub>: 25,000 mg/kg (as hexanes)

IHL-RAT LC<sub>50</sub>: 48,000 ppm/4H (as hexanes)

SKN-RBT LD<sub>50</sub>: N.A.

---

**SECTION 12 — ECOLOGICAL INFORMATION**

---

Data not yet available.

---

**SECTION 13 — DISPOSAL CONSIDERATIONS**

---

Please review all federal, state and local regulations that may apply before proceeding.

Flinn Suggested Disposal Method #18b is one option.

---

**SECTION 14 — TRANSPORT INFORMATION**

---

Shipping name: Hexanes. Hazard class: 3, Flammable liquid. UN number: UN1993.

N/A = Not applicable

---

**SECTION 15 — REGULATORY INFORMATION**

---

TSCA-listed, EINECS-listed (203-777-6), RCRA code D001.

---

**SECTION 16 — OTHER INFORMATION**

---

This Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

Consult your copy of the *Flinn Science Catalog/Reference Manual* for additional information about laboratory chemicals.

Revision Date: June 4, 2014