

Proper

HC#01

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PROPPER MANUFACTURING COMPANY, INC.
36-04 SKILLMAN AVENUE
LONG ISLAND CITY, NY 11101, USA

MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet applies to the following Propper products:

Seracult® Developer – reorder number: 379015. Also contained in Seracult kits: 371001, 371002, 372003, 372004, 372005, 372007, 379010 and 379015.

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|-----|-----------|-----------|-------|
| | I- 151200 | C- 379015 | ORM-D |
| | I- 147489 | C- 371001 | ORM-D |
| | I- 147490 | C- 371002 | ORM-D |
| DGM | I- 413027 | C- 371002 | ORM-D |
| DGM | I- 418584 | C- 371002 | ORM-D |
| | I- 147492 | C- 372003 | ORM-D |
| | I- 147491 | C- 372004 | ORM-D |
| | I- 162310 | C- 372005 | ORM-D |
| | I- 147491 | C- 372007 | ORM-D |
| | I- 147493 | C- 379010 | ORM-D |

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MSDS - Seracult® Developer

IDENTIFICATION

Product Name: Seracult® Developer

Classification: chemical mixture

Hazardous Components: a) ethanol, SDA 40 (denatured alcohol)
b) hydrogen peroxide (stabilized)

Approximate
Concentration

In Product: a) ethanol ... 75%
b) hydrogen peroxide ... 5%

Synonyms: a) ethanol ... ethyl alcohol
b) hydrogen peroxide ... superoxol, oxydol, hydrogen dioxide solution

Chemical Family: a) ethanol ... alcohol
b) hydrogen peroxide ... inorganic peroxide

Molecular Formula: a) ethanol ... C_2H_6O
b) hydrogen peroxide ... H_2O_2

CAS Number: a) ethanol (denatured) ... not available
b) hydrogen peroxide (35%) ... 7722-84-1

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PHYSICAL PROPERTIES

Boiling Point: 81°C

Vapor Pressure: Similar to ethanol SDA 40 (~ 21 mm Hg).

Evaporation Rate: Similar to ethanol SDA 40 (~ 1.6 ... butyl acetate = 1).

% Volatiles: ~ 100 (by volume).

Freezing Point: < -20°C

Specific Gravity: 0.86

Solubility In Water: Completely miscible.

Appearance: Clear, colorless, water-like.

Odor: Characteristic alcohol scent.

MSDS - Seracult® Developer

CHEMICAL REACTIVITY

Stability: a) *ethanol*: Is generally considered to be stable except when exposed to excessive heat, sparks, open flame, other sources of ignition and incompatible chemicals.

b) *hydrogen peroxide*: Should be regarded as unstable because of its varied reactivity with a wide range of incompatible materials and restrictive storage requirements.

Incompatibility: a) *ethanol*: Concentrated nitric and sulfuric acids, strong oxidizing agents. Excessive heat may cause container pressurization enhancing the risk of explosion and fire.

b) *hydrogen peroxide*: Rust, dirt, dust and inert particulate solids in general. A solution pH > 4. Iron, copper and a host of heavy metals, their salts and alloys. A wide variety of organic materials, reducing agents and strong oxidizing agents. Ultra violet light may induce photo decomposition.

Hazardous Polymerization: This will not occur with the Seracult® Developer or any of its components.

Hazardous Combustion

And Decomposition Products: a) *ethanol*: Incomplete combustion may produce carbon monoxide and/or carbon dioxide.

b) *hydrogen peroxide*: Oxygen may be evolved resulting in a fire intensification hazard.

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HEALTH HAZARD INFORMATION

Acute Effects of Overexposure

Eye Contact:

- a) Seracult® Developer was not tested.
- b) Ethanol is a known eye irritant.
- c) Hydrogen peroxide is a severe (corrosive) eye irritant.

Skin Contact:

- a) Seracult® Developer was not tested.
- b) Ethanol is a defatting agent and on prolonged contact will deplete the skin of natural oils. Irritation may result but, its full skin irritation potential has not been fully assessed.
- c) Hydrogen peroxide (at product concentrations of 5 to 6% by weight) may produce a mild burning sensation and/or bleaching or whitening of the skin. Irritation may follow prolonged contact.

Skin Absorption:

- a) Seracult® Developer was not tested.
- b) Ethanol ... The effects are not currently known.
- c) Hydrogen peroxide ... LD50 > 2000 mg/kg (rabbit); FMC ref. I83-745, 1983.

Inhalation:

- a) Seracult® Developer was not tested.
- b) Ethanol may cause headaches, dizziness, drowsiness, lassitude, loss of appetite, inability to concentrate, decreased motor response, euphoria, nausea and vomiting.
ACGIH-TLV 1000 ppm, TWA; OSHA-PEL 1000 ppm, TWA.
- c) Hydrogen peroxide may cause irritation or chemical burns to mucous membranes and the gastrointestinal tract. Further injury may result from a distention of the esophagus and/or stomach caused by sudden gas evolution after hydrogen peroxide decomposition.
LD50 = 1270 mg/kg (female rat); FMC ref. I83-745, 1985.

Ingestion:

Seracult® Developer contains ingredients which render this product wholly unfit for beverage purposes. If taken internally, serious health consequences may result.

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HEALTH HAZARD INFORMATION

Chronic Effects of Overexposure

- Carcinogenicity:**
- a) Seracult® Developer was not tested.
 - b) Ethanol ... no information available.
 - c) Hydrogen peroxide ... In mice, IARC 28:155 (1982); IARC: 36 (1985). Hydrogen peroxide is generally recognized as safe for use as a human food additive with no residues.

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FIRE AND EXPLOSION HAZARD INFORMATION

Flash Point: Seracult® Developer was not tested. It should be considered similar to ethanol SDA 40, 190 proof:
16.1°C Tag closed cup; 21.1°C Tag open cup.

Flammable Limits In Air: Seracult® Developer was not tested. It should be considered similar to ethanol: 3.3%
by volume (lower limit); 19% by volume (upper limit).

Classification: **Flammable Liquid** – The liquid developer will ignite in direct flame.

Extinguishing Media: Use water, carbon dioxide, dry chemicals or universal-type foams applied per
manufacturer's recommendations.

Special Fire Fighting Procedures: Wear protective clothing. Use self-contained breathing apparatus (NIOSH
Certified). Do not use oxidizable sorbents.

Special Fire And Explosion Hazards: Oxygen evolution from the decomposition of hydrogen peroxide will
support combustion and may serve to intensify a fire.

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EMERGENCY AND FIRST AID PROCEDURES

Eyes: Flush eyes immediately with low pressure cold water for 15 minutes. Contact a physician.

Skin: Flush contact area with cold water. Wash affected area with soap and water ... rinse thoroughly. Skin that has been bleached white will return to normal color within a few hours. If irritation persists, contact a physician.

Inhalation: Move victim into fresh air. If breathing is labored or victim loses consciousness contact a physician immediately. If breathing stops, administer artificial respiration; use oxygen as required. Contact a physician immediately.

Ingestion: If fully conscious, lucid and not convulsing, victim should drink as much water as possible. Contact a physician or poison control center immediately. Do not induce vomiting unless instructed to do so by a certified medical authority.

MSDS - Seracult® Developer**STORAGE AND HANDLING**

1. Avoid excessive heat, e.g., locations in close proximity to radiators, steam or hot water pipes, open flames, sparking equipment and all other ignition sources.
2. Avoid unnecessary exposure to sources of ultra violet light, e.g., direct sunlight, uv lamps and uv-emitting room lights.
3. Replace bottle closure when Seracult® Developer is not being used. This will diminish alcohol vapors and reduce the risk of developer contamination.

SPILL AND LEAK PROCEDURES

Dilute leaks and spills with large amounts of cold water. Discharge diluted waste in accordance with local state and federal environmental regulations.