

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifiers**

Product Name : Santovac® 5 Cryo Oil
Product Number : HR2-861
CAS Number : 2455-71-2

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

1.3 Details of the supplier of the Safety Data Sheet

Company : Hampton Research
34 Journey
Aliso Viejo, CA 92656-3317
United States

Telephone : 949 425 1321
Telephone technical support is available 8:00 a.m. to 4:30 p.m. USA Pacific Standard Time.

Fax : 949 425 1611
Fax Technical Support is available 24 hours a day.

e-mail : tech@hrmail.com
e-mail Technical Support is available 24 hours a day.

1.4 Emergency telephone number

Emergency phone : 949 425 1321
For **CHEMTREC** Assistance : 800 424 9300
For **CHEMTREC** Assistance : 703 527 3887 (International)

SECTION 2: Hazards Identification**2.1 Classification of the substance or mixture**

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2 Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards : none

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Substance Name	Synonym	Formula	M _r	CAS #	EC #
Santovac® 5 Cryo Oil	• N/A	N/A	446 (Average)	2455-71-2	N/A

RTECS	Merck	Beilstein	SARA	MDL #	PubChem Substance ID
N/A	N/A	N/A	N/A	N/A	N/A

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General Advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes as a precaution and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

None known

5.2 Special hazards arising from the substance or mixture

Carbon oxides

(CONTINUED) - SECTION 5: FIRE FIGHTING MEASURES

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further Information

No data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Personal Precautions

Provide appropriate exhaust ventilation at places where dust is formed.

See Section 8 for additional information on hygiene measures. Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end uses

No data available

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

(CONTINUED) - SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

a) Appearance	Form: Light yellow clear liquid Color: Liquid
b) Odor	Odorless to slight phenolic
c) Odor Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	889°F (476°C) @ 760 mm Hg
g) Flash point	550°F (287°C)
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapor pressure	4x10 ⁻¹⁰ torr @ 25°C
l) Vapor density	no data available
m) Relative density	no data available
n) Water solubility	no data available
o) Partition coefficient: octanol/water	no data available
p) Autoignition temperature	590°C (1094°F)
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties	no data available
t) Oxidizing properties	no data available

(CONTINUED) - SECTION 9: Physical and Chemical Properties

9.2 Other safety information

no data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Continued use at temperatures above 425°C may result in the formation of benzene and phenol. If the product is burned, complete combustion produced carbon dioxide and water and partial combustion produces carbon monoxide, smoke, soot, and low molecular weight hydrocarbons.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Oral LD50 - rat - > 34,600 mg/kg - Practically Nontoxic

Oral LD50 - rabbit - > 34,600 mg/kg - Practically Nontoxic

Dermal LD50 - rabbit - > 34,600 mg/kg - Practically Nontoxic

Inhalation LC50 - rat 4-hr > 47 mg/l. No deaths and no signs of toxicity were observed in animals exposed to 47 mg/l, the highest atmospheric concentration achievable by heating the material to 329°C in this study.
- Practically Nontoxic

Skin / irritation and corrosion

Skin - rabbit - 24-hr exposure, 0.0/8.0) - Nonirritating

Serious eye damage/eye irritation

Eye - rabbit - 0.0/110.0 - Nonirritating

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

(CONTINUED) - SECTION 11: Toxicological Information

Chronic exposure

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional information

RTECS: no data available

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 16: Other Information

DISCLAIMER

For research use only. Not for drug, household, or other use.

WARRANTY

The above information is believed to be correct but does no purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of this product. Hampton Research Corp., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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