

SAFETY DATA SHEETS

This SDS packet was issued with item:

071116649

N/A

Material Safety Data Sheet

Safety Data Sheet (in compliance with Regulation (EC) 1907/2006, Regulation (EC) 1272/2008 and Regulation (EC) 453/2010)

Date Issued: 22 June 2009
Date Revised: 26 August 2011
Revision Number: 3


1. PRODUCT IDENTIFICATION

Product Name:	Patterson Orange Solvent
Chemical Name/Classification:	Mixture
Product Code:	070887406
U.N. Number:	None
U.N. Dangerous Goods Classification:	None
Recommended Use:	Instrument and surface cleaning
Restrictions on Use:	For Professional Use Only
Manufacturer/Supplier Name:	Patterson Companies, Inc.
Manufacturer/Supplier Address:	1031 Mendota Heights Road St. Paul, MN 55120
Manufacturer/Supplier Telephone Number:	1-(800) 328-5536 - Product Information Fax:1-(651) 686-9331
Emergency Contact Telephone Number:	24-hour Emergency Response Number: (800) 424-9300.
Website:	www.pattersoncompanies.com

2. HAZARD(S) IDENTIFICATION

EU Classification (1999/45/EC as amended): Harmful (Xn) R65

EU Labeling:

 Harmful	Contains white mineral oil (petroleum) R65 Harmful: may cause lung damage if swallowed. S24 Avoid contact with skin. S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
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US Hazard Classification: Hazardous

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Components	C.A.S. # EC#	IUPAC Name	Substance Classification	WT %
Mineral Oil	8042-47-5 / 232-455-8	White mineral oil (petroleum)	Xn R65	<90
Orange Oil Terpenes	8008-57-9 / Not assigned	Oil of Orange	Not classified as hazardous	<10





Refer to Section 16 for the full text of the GHS and H phrases and EU Classifications and R Phrases.

4. FIRST-AID MEASURES

Routes of Exposure	First Aid Instructions
Eye	Flush eyes with large quantities of water several minutes, holding the eyelids apart. Get medical attention if irritation persists.
Skin	Wash skin with soap and water.
Inhalation	If irritation develops, remove to fresh air. Get medical attention if symptoms persist.
Ingestion	If swallowed, wash mouth with water. DO NOT induce vomiting. If vomiting occurs, place victim's head below their knees. Never give anything by mouth to an unconscious person. Get immediate medical attention.
Most important symptoms of exposure	May cause mild eye irritation.
Other	None known.
Note to Physicians (Treatment, Testing, and Monitoring): Treatment of overexposure should be directed at the control of symptoms and clinical conditions. Induction of vomiting is not recommended due to potential aspiration toxicity.	

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Use water fog, carbon dioxide or foam. Do not use straight water stream.
Fire Fighting Procedures:	Cool fire exposed containers and structures with water.
Specific Hazards Arising from the Chemical:	Combustible liquid. Releases flammable vapors when heated above the flashpoint. Mists or sprays may burn at temperatures below the flashpoint.
Precautions for Fire Fighters:	Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for all fires involving chemicals.



Recommended Protective Equipment for Fire Fighters:			
EYES/FACE	SKIN	RESPIRATORY	THERMAL
			

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, PPE and Emergency Procedures: For large spills, wear eye protection and gloves. Small spills do not require special precautions. Eliminate all ignition sources and ventilate the area.

Environmental Precautions: Prevent spill from entering sewers and water courses. Report releases as required by local and national authorities.

Methods and Materials for Containment and Clean-up: Collect using an inert non-combustible absorbent material and place in appropriate containers for disposal. Clean spill area thoroughly.

Recommended Personal Protective Equipment for Containment and Clean-up:			
EYES/FACE	SKIN	RESPIRATORY	THERMAL
			

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with the eyes. Avoid prolonged skin contact. Use in accordance with package instructions. Keep product away from heat and sources of ignition.

Conditions for Safe Storage: Store in a cool, well-ventilated area away from oxidizers. Do not store above 95°F (35°) or in direct sunlight for prolonged periods.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

Mineral Oil:	United States	5 mg/m ³ inhalable TWA ACGIH TLV; 5 mg/m ³ TWA OSHA PEL
	Germany	None Established
	United Kingdom	None Established
	France	None Established
	Spain	None Established
	Italy	None Established
	European Union	None Established

Orange Oil Terpenes	United States	None Established
	Germany	None Established
	United Kingdom	None Established
	France	None Established
	Spain	None Established
	Italy	None Established
	European Union	None Established

Biological Exposure Limits: None Established

Appropriate Engineering Controls: No special controls required for normal use. Use with adequate local or general ventilation to minimize exposure concentrations.

Individual Protection Measures (PPE)



Specific Eye/face Protection: Safety glasses should be worn if contact is likely.

Specific Skin Protection: Wear oil impervious gloved such as neoprene or nitrile for prolonged use. Recommended glove: Neoprene or nitrile. Consult glove supplier for thickness and breakthrough times.

Specific Respiratory Protection: None required under normal use conditions.

Specific Thermal Hazards: Not applicable

Recommended Personal Protective Equipment:

EYES/FACE	SKIN	RESPIRATORY	THERMAL
			

Environmental Exposure Controls: None required for normal use.

General Hygiene Considerations and Work Practices: Avoid prolonged skin contact. Routine hand washing after use recommended.

Protective Measures During Repair and Maintenance of Contaminated Equipment: Wear protective clothing and equipment as described in Section 8. Wash thoroughly with soap and water after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Oily transparent liquid	Explosive limits:	Not determined
Odor:	Strong orange	Vapor pressure:	Not determined
Odor threshold:	Not available	Vapor density:	>1
pH:	4.9 (1:1)	Relative density:	0.798-0.882
Melting/freezing point:	Not determined	Solubility:	None
Initial boiling point and range:	Not determined	Partition coefficient: n-octanol/water:	Not determined
Flash point:	181°F / 82.8°C	Auto-ignition temperature:	Not available
Evaporation rate:	Not available	Decomposition temperature:	Not available
Flammability:	Not flammable but will burn	Viscosity:	Not available
Explosive Properties:	None	Oxidizing Properties:	None

10. STABILITY AND REACTIVITY

Reactivity: No hazardous reactions anticipated.

Chemical Stability: Stable under ambient conditions.

Possibility of Hazardous Reactions: None known.

Conditions to Avoid: Avoid heat and sources of ignition.

Incompatible materials: Avoid oxidizing agents, and alkali metals.

Hazardous Decomposition Products: Thermal decomposition may produce carbon oxides and hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: Direct contact may cause mild irritation with redness and tearing.

Skin: Not expected to cause irritation. Prolonged or repeated skin contact may cause dryness, defatting and dermatitis.

Ingestion: Swallowing may cause nausea, vomiting and diarrhea. Aspiration into the lungs during swallowing or vomiting may cause severe lung damage.

Inhalation: None expected from normal use. Inhalation of mists that may be formed if product is heated or sprayed may cause irritation of the upper respiratory tract.

Chronic Health Effects: None known.

Carcinogenicity: None of the components of this product are listed as carcinogens by OSHA, IARC, ACGIH, NTP or EU Directives. Lifetime skin painting studies in mice have shown no carcinogenic effects.

Mutagenicity: Mineral oil was negative in the modified AMES test and in-vitro mouse lymphoma assay.

Medical Conditions Aggravated by Exposure: Skin disorders may be aggravated by exposure.

Acute Toxicity Data:

Mineral Oil: Oral Rat LD50 >5,000 mg/kg; Skin rabbit LD50 >2,000 mg/kg

Orange Oil Terpenes: Oral Rat LD50 >5,000 mg/kg; Skin rabbit LD50 >5,000 mg/kg

Reproductive Toxicity Data: No data available.

Specific Target Organ Toxicity (STOT):

Single Exposure: Mineral Oil: Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above the applicable workplace exposure levels include lung inflammation, lipoid granuloma and lipid pneumonia.

Repeated Exposure: No adverse effects expected.

12. ECOLOGICAL INFORMATION

Toxicity: No data available.

Persistence and Degradability: Biodegradation data is not available.

Bio-accumulative Potential: No data is available.

Mobility in Soil: No data is available.

Other Adverse Effects: The coating action associated with petroleum products can be harmful or fatal to aquatic life.

Results of PBT/vPvB Assessment: Not required.

13. DISPOSAL CONSIDERATIONS

Regulations: Dispose in accordance with local and national environmental regulations

Properties (Physical/Chemical) Affecting Disposal: None known.

Waste Treatment Recommendations: None needed for normal anticipated use.

14. TRANSPORT INFORMATION

UN Number:	ADR/RID: None	IMDG: None	IATA: None	DOT: None
UN proper shipping name:	ADR/RID: Not Regulated IMDG: Not Regulated IATA: Not Regulated DOT: Not Regulated			
Transport hazard class(es):	ADR/RID: None	IMDG: None	IATA: None	DOT: None
Packaging group:	ADR/RID: None	IMDG: None	IATA: None	DOT: None
Environmental hazards:	ADR/RID: No	IMDG Marine pollutant: No	IATA: No	DOT: No
Special precautions for user: Not applicable				

15. REGULATORY INFORMATION

U.S. Federal Regulations

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): Releases of oil to waterways must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

Toxic Substances Control Act (TSCA): All of the components of this product are listed on the TSCA inventory or exempt.

Clean Water Act (CWA): Not Listed

Clean Air Act (CAA): Not Listed

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA Section 311/312 (40 CFR 370) Hazard Categories:

Immediate Hazard:	No	Pressure Hazard:	No
Delayed Hazard:	No	Reactivity Hazard:	No
Fire Hazard:	No		

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372):

Components	C.A.S. #	WT %
None		

State Regulations

California: This product contains the following chemicals(s) known to the State of California to cause cancer, birth defects or reproductive harm:

Components	C.A.S. #	WT %
None		

International Regulations

Canadian Environmental Protection Act: All the components of this product are listed on the Canadian DSL.

Canadian Workplace Hazardous Materials Information System (WHMIS): Not a controlled product.

EU REACH: The substances in this product comply with the EU REACH regulation as applicable.

16. OTHER INFORMATION
Full text of Classification abbreviations used in Section 2 and 3: Xn Harmful R65 Harmful: may cause lung damage if swallowed. Date of SDS Preparation/Revision: 26 August 2011

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SECTION 1: Identification

Product identifier

Product name: Patterson Orange Solvent

Product ID: 071116649

Recommended use of the product and restriction on use

Relevant identified uses: Not determined or not applicable.

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:

United States

Patterson Companies, Inc.

1031 Mendota Heights Road

St. Paul, MN 55120

1-800-328-5536

www.pattersoncompanies.com

Emergency telephone number:

United States

CHEMTREC

Within USA and Canada: 1-800-424-9300 (24 hours)

SECTION 2: Hazard(s) identification

GHS classification:

Skin irritation, category 2

Skin sensitization, category 1

Aspiration hazard, category 1

Eye irritation, category 2A

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H304 May be fatal if swallowed and enters airways

H319 Causes serious eye irritation

Precautionary statements:

P264 Wash skin thoroughly after handling

P280 Wear protective gloves/protective clothing/eye protection/face protection

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P272 Contaminated work clothing must not be allowed out of the workplace

P302+P352 IF ON SKIN: Wash with plenty of water

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P321 Specific treatment (see first aid instructions on this label)
P332+P313 If skin irritation occurs: Get medical advice/attention
P362 Take off contaminated clothing and wash it before reuse
P333+P313 If skin irritation or rash occurs: Get medical advice/attention
P331 Do NOT induce vomiting
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 If eye irritation persists: Get medical advice/attention
P405 Store locked up
P501 Dispose of contents/container according to local regulations.

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 8042-47-5	White Mineral Oil	85-95
CAS number: 5989-27-5	Limonene D Pure	5-15

Additional Information:

The specific chemical identity and/or exact percentages (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR §1910.1200)

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

If respiratory irritation or distress occurs, move victim to fresh air. Seek medical attention if respiratory irritation or distress continues.

After skin contact:

Wash thoroughly with water. If irritation or redness develops, seek medical attention.

After eye contact:

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

After swallowing:

DO NOT INDUCE VOMITING, rinse mouth thoroughly. Seek immediate medical attention.

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Skin contact may result in redness, pain, burning and inflammation.

Dermal exposure may cause an allergic skin reaction. Symptoms may include irritation, redness, pain, rash, inflammation, itching, burning and dermatitis.

May be fatal if swallowed and enters airways. Aspiration may cause pulmonary edema and pneumonitis. Symptoms may include shortness of breath, dry cough and irritation of the nose, eyes, lips, mouth and throat.

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Eye contact may result in irritation, redness, pain, inflammation, itching, burning and tearing.

Delayed symptoms and effects:

Effects are dependent on exposure (dose, concentration, contact time).

Symptoms of pulmonary edema may be delayed.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE: Skin contact may aggravate existing skin disease.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Extinguish with dry chemical, CO2 extinguisher.

Unsuitable extinguishing media:

Do not use a solid stream of water, since the stream will scatter and spread the fire. Water spray may be used to keep fire exposed containers cool.

Specific hazards during fire-fighting:

Closed containers may explode due to build-up of pressure when exposed to extreme heat.

Special protective equipment for firefighters:

Wear full protective clothing and self-contained breathing apparatus (SCBA) approved for firefighting.

Special precautions:

(Under fire conditions) Oxides of nitrogen and carbon.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

Avoid contact with eyes, skin and clothing. Eliminate all sources of ignition.

Environmental precautions:

Do not allow to penetrate ground or soil or sewer. Dispose of in accordance with sec 13.

Methods and material for containment and cleaning up:

Ventilate area of spill. Use non-reactive material to pick up spill and federal regulations.

Reference to other sections:

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling:

Fumes can combine with air to form explosive mixtures

DO NOT Smoke.

AVOID CONTACT WITH SKIN, EYES OR CLOTHING. Wear Goggles and protective gloves.

Conditions for safe storage, including any incompatibilities:

Minimum/Maximum Storage Temperatures: 0°F to 100°F.

Keep away from ignition sources.

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SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	White Mineral Oil	8042-47-5	8-Hour TWA: 5 mg/m ³
NIOSH	White Mineral Oil	8042-47-5	REL: 5 mg/m ³
	White Mineral Oil	8042-47-5	STEL: 10 mg/m ³
	White Mineral Oil	8042-47-5	IDLH: 2500 mg/m ³
OSHA	White Mineral Oil	8042-47-5	PEL: 5 mg/m ³
	White Mineral Oil	8042-47-5	TWA: 5 mg/m ³
WEEL	Limonene D Pure	5989-27-5	8-Hour TWA: 30 ppm

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

These recommendations provide general guidance for handling of this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. When developing safe handling procedures, do not overlook the need to clean and dispose of the material. Waste resulting from the use of this product should be handled in accordance with Section 13: Disposal Considerations
Provide adequate room ventilation.

Personal protection equipment

Eye and face protection:

Safety glasses to protect from splashing.

Skin and body protection:

Wear Rubber or plastic gloves to avoid drying and irritation to the skin.

Respiratory protection:

For reasonable uses of this material, respiratory protection should not be necessary.

General hygienic measures:

Normal hygiene in the work area should be taken when working with or handling this product.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear liquid
Odor	Characteristic
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	<230 deg C
Flash point (closed cup)	200 deg F
Evaporation rate	Not determined or not available.

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Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	<0.1 at 20C (From SDS)
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	Not determined or not available.
Solubilities	Insoluble
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

Stable

Possibility of hazardous reactions:

Will not occur

Conditions to avoid:

Keep away from heat and open flames.

Incompatible materials:

Strong Acids, strong Oxidizing Agents

Hazardous decomposition products:

Thermal Oxides of carbon and nitrogen.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Route	Result
White Mineral Oil	dermal	LD50 Rabbit: >2000 mg/kg
	oral	LD50 Rat: >5000 mg/kg
	inhalation	LC50 Rat: >5 mg/L (4 h)
Limonene D Pure	oral	LD50 Mouse: 5600 mg/kg
	dermal	LD50 Rabbit: > 5000 mg/kg

Skin corrosion/irritation

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Assessment:

Causes skin irritation.

Product data:

No data available.

Substance data:

Name	Result
Limonene D Pure	Causes skin irritation.

Serious eye damage/irritation

Assessment:

Causes serious eye irritation.

Product data:

No data available.

Substance data: No data available.

Respiratory or skin sensitization

Assessment:

May cause an allergic skin reaction.

Product data:

No data available.

Substance data:

Name	Result
Limonene D Pure	May cause an allergic skin reaction.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC):

Name	Classification
White Mineral Oil	Group 3
Limonene D Pure	Group 3

National Toxicology Program (NTP):

Name	Classification
Limonene D Pure	Not Applicable

OSHA Carcinogens: Not applicable

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

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Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Aspiration toxicity

Assessment:

May be fatal if swallowed and enters airways.

Product data:

No data available.

Substance data:

Name	Result
White Mineral Oil	May be fatal if swallowed and enters airways.

Information on likely routes of exposure:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

Other information:

No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
White Mineral Oil	LC50 Lepomis macrochirus: >10000 mg/L (96 h)
Limonene D Pure	LC50 Pimephales promelas: 0.46 mg/L (4 days)
	EC50 Daphnia magna: 0.307 mg/L (48 Hr)

Chronic (long-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
White Mineral Oil	EC50 Daphnia magna: >1000 mg/L (14 d)
Limonene D Pure	NOEC Pimephales promelas: 0.37 mg/L (8 days)
	EC50 Daphnia magna: 0.188 mg/L (21 days)

Persistence and degradability

Product data: No data available.

Substance data:

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Name	Result
White Mineral Oil	Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance
Limonene D Pure	Readily biodegradable in water (71.4% degradation in 28 days).

Bioaccumulative potential

Product data: No data available.

Substance data:

Name	Result
White Mineral Oil	Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance
Limonene D Pure	The calculated Bioaccumulation Factor (BCF) is 864.8 L/kg wet/wet.

Mobility in soil

Product data: No data available.

Substance data:

Name	Result
White Mineral Oil	Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance
Limonene D Pure	Slightly Mobile (the Koc of d-limonene predicted from log Kow is 6324 L/kg).

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

This material must be disposed in according of according to official regulations. Not to be disposed of in household garbage. sanitary sewer systems, with dilution, where permitted by local, federal and state regulations.

Contaminated packages:

Not determined or not applicable.

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None

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Packing group	None
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

8042-47-5	White Mineral Oil	Listed
5989-27-5	Limonene D Pure	Listed

Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals:

8042-47-5	White Mineral Oil	Not Listed
5989-27-5	Limonene D Pure	Not Listed

CERCLA: Not determined.

RCRA: Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

8042-47-5	White Mineral Oil	Listed
5989-27-5	Limonene D Pure	Not Listed

New Jersey Right to Know:

8042-47-5	White Mineral Oil	Listed
5989-27-5	Limonene D Pure	Not Listed

New York Right to Know:

8042-47-5	White Mineral Oil	Not Listed
5989-27-5	Limonene D Pure	Not Listed

Pennsylvania Right to Know:

8042-47-5	White Mineral Oil	Listed
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5989-27-5	Limonene D Pure	Not Listed
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California Proposition 65: None of the ingredients are listed.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 2-0-0

HMIS: 2-0-0

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End of Safety Data Sheet

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SECTION 1: Identification

Product identifier

Product name: Patterson Orange Solvent

Product code: 070887406

Recommended use of the product and restriction on use

Relevant identified uses: Instrument and surface cleaning

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: For professional use only

Manufacturer or supplier details

Manufacturer:

Supplier

Patterson Companies, Inc.

1031 Mendota Heights Road

St. Paul, MN 55120

1-800-328-5536 Fax:1-651-686-9331

Emergency telephone number:

United States

CHEMTREC

Within USA and Canada: 1-800-424-9300 (CHEMTREC, 24 hours)

Outside USA and Canada: +1-703-527-3887 (CHEMTREC, 24 hours)

SECTION 2: Hazard(s) identification

GHS classification:

Skin irritation, category 2

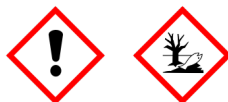
Skin sensitization, category 1

Acute aquatic hazard, category 2

Chronic aquatic hazard, category 2

Label elements

Hazard pictograms:



Signal word: Warning

Hazard statements:

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H401 Toxic to aquatic life

H411 Toxic to aquatic life with long lasting effects

Precautionary statements:

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P264 Wash skin thoroughly after handling
P280 Wear protective gloves/protective clothing/eye protection/face protection
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P272 Contaminated work clothing should not be allowed out of the workplace
P273 Avoid release to the environment
P321 Specific treatment (see supplemental first aid instructions on this label).
P362 Take off contaminated clothing and wash before reuse
P302+P352 If on skin: Wash with soap and water
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention
P391 Collect spillage
P501 Dispose of contents and container as instructed in Section 13

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 8042-47-5	Mineral Oil	<90
CAS number: 8008-57-9	Orange Oil Terpenes	<10

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position
Maintain an unobstructed airway
Get medical advice/attention if you feel unwell

After skin contact:

Rinse affected area with soap and water
If symptoms develop or persist, seek medical attention
Take off all contaminated clothing
Gently blot or brush away excess product
Wash with plenty of lukewarm, gently flowing water
Get medical advice if skin irritation occurs or you feel unwell

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes
If symptoms develop or persist, seek medical attention

After swallowing:

Rinse mouth thoroughly
Seek medical attention if irritation, discomfort, or vomiting persists

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not applicable.

Delayed symptoms and effects:

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Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

Special protective equipment for firefighters:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:

Not determined or not applicable.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

- Ensure adequate ventilation
- Ensure air handling systems are operational
- Wear protective eye wear, gloves and clothing

Environmental precautions:

- Should not be released into the environment
- Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:

- Wear protective eye wear, gloves and clothing
- Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders)
- Dispose of contents / container in accordance with local regulations

Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:

- Use only with adequate ventilation.
- Avoid breathing mist or vapor.
- Do not eat, drink, smoke or use personal products when handling chemical substances.

Conditions for safe storage, including any incompatibilities:

- Keep container tightly sealed.
- Protect from freezing and physical damage.
- Store in a cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

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Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Mineral Oil	8042-47-5	8-Hour Exposure Limit (TLV-TWA): 5 mg/m ³ (Mineral oil, excluding metal working fluids, pure, highly and severely refined; Inhalable fraction)
NIOSH	Mineral Oil	8042-47-5	REL (for up to a 10-hour workday during a 40-hour workweek): 5 mg/m ³ [Oil mist (Mineral)]
	Mineral Oil	8042-47-5	STEL: 10 mg/m ³ [Oil mist (Mineral)]
	Mineral Oil	8042-47-5	IDLH: 2500 mg/m ³ [Oil mist (Mineral)]
United States (OSHA)	Mineral Oil	8042-47-5	PEL: 5 mg/m ³ [Oil mist (Mineral)]

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls.

Biological monitoring may also be appropriate for some substances.

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Wear appropriate clothing to prevent any possibility of skin contact.

Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

General hygienic measures:

Avoid contact with skin, eyes and clothing.

Wash hands before breaks and at the end of work.

Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Oily transparent liquid
Odor	Not determined or not available.
Odor threshold	Not determined or not available.

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pH	4.9
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	181°F (82.8°C)
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	Not determined or not available.
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

Stable under normal conditions of use and storage.

Possibility of hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

None known.

Incompatible materials:

None known.

Hazardous decomposition products:

None known.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation

Assessment: Causes skin irritation

Product data:

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No data available.

Substance data: No data available.

Serious eye damage/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Respiratory or skin sensitization

Assessment: May cause an allergic skin reaction

Product data:

No data available.

Substance data: No data available.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed.

National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Information on likely routes of exposure:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

Other information:

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No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Toxic to aquatic life

Product data: No data available.

Substance data: No data available.

Chronic (long-term) toxicity

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data: No data available.

Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

Mobility in soil

Product data: No data available.

Substance data: No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
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UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

8042-47-5	Mineral Oil	Listed
8008-57-9	Orange Oil Terpenes	Listed

Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals:

8042-47-5	Mineral Oil	Not Listed
8008-57-9	Orange Oil Terpenes	Not Listed

CERCLA: Not determined.

RCRA: Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

8042-47-5	Mineral Oil	Listed
8008-57-9	Orange Oil Terpenes	Not Listed

New Jersey Right to Know:

8042-47-5	Mineral Oil	Listed
8008-57-9	Orange Oil Terpenes	Not Listed

New York Right to Know:

8042-47-5	Mineral Oil	Not Listed
8008-57-9	Orange Oil Terpenes	Not Listed

Pennsylvania Right to Know:

8042-47-5	Mineral Oil	Listed
8008-57-9	Orange Oil Terpenes	Not Listed

California Proposition 65: None of the ingredients are listed.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in

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this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 2-0-0

HMIS: 2-0-0

Initial preparation date: 11.27.2017

End of Safety Data Sheet