

1. Identification

Name n-Pentyl propionate

CAS Number 624-54-4

Recommendation for the chemical and restrictions on use

Applications Research and development/Performance chemical/ Industrial solvent.

Restrictions No specific uses advised against are identified.

Supplier's Details

InKemia Green Chemicals, Inc.

1213 West Loop North Suite 140 , Houston, TX 77005

+1 (713) 909-7717

web@inkemiagreenchemicals.com

Emergency contact number

InKemia Green Chemicals, Inc.

Tel: +1 (713) 909-7717

For emergency calls only.

2. Hazards

Classification of the substance or mixture

Classification Flammable liquids (Category 3), H226.
Acute aquatic toxicity (Category 3), H402.

Label elements

Pictogram



Signal word

Warning

Hazard Statements

H226 - Flammable liquid and vapor.

H402 - Harmful to aquatic life.

Precautionary Statements

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 - Keep container tightly closed.

P240 - Ground and bond container and receiving equipment.

P241 - Use explosion-proof electrical/ventilating/lighting equipment.

P242 - Use non-sparking tools.

P243 - Take action to prevent static discharges.

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P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing Rinse skin with water [or shower].
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 + P235 - Store in a well-ventilated place. Keep cool.
P501 - Dispose of contents/container to an approved waste disposal plant

Other Hazards None.

3 - Composition/information on ingredients

Substances

Chemical Name	n-Pentyl propionate
Synonyms	Pentyl propionate; Amyl propionate; Pentyl propanoate; Propanoic acid, pentyl ester.
CAS Number	624-54-4
Molecular Formula	C ₈ H ₁₆ O ₂
Molecular Weight (g/mol)	144.214

Hazardous components

Component	Classification	Concentration
n-Pentyl propionate	Flam. Liq. 3, Aquatic Acute 3; H226, H402	<=99 wt. %

Note: For the full text of the H-Statements mentioned in this Section, see Section 16.

Impurities and stabilizing additives No data available.

Mixtures Not applicable.

4 - First-aid measures

Description of first aid measures

General information Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.

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Inhalation	Remove from exposure, moving to fresh air. Artificial respiration and oxygen are necessary if not breathing. Consult a physician.
Ingestion	Wash out mouth with water if the person is conscious. Do not induce vomiting. Consult a physician.
Skin contact	Immediately wash skin with soap and copious amounts of water.
Eye contact	Immediately irrigate with copious amounts of water for 15 minutes. Consult a physician.
Protection of first-aiders	First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information	The severity of the symptoms described might vary depending on the concentration and length of exposure.
Inhalation	Slightly dangerous.
Ingestion	Slightly dangerous.
Skin contact	May cause irritation.
Eye contact	May cause irritation.

Indication of immediate medical attention and special treatment need

Notes for the doctor	Treat symptomatically.
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5 – Fire-fighting measure

Extinguishing media

Suitable extinguisher media	Dry extinguishing powder, carbon dioxide, alcohol-resistant foam.
Unsuitable extinguisher media	No data available.

Special hazards arising from the substance of mixture

Specific hazards	Flammable liquid and vapor. Vapors may accumulate in low or confined areas. Runoff to sewer may create fire or explosion hazards. Keep away from sources of ignition (heat, sparks, flames, static electricity, pilot lights, and mechanical/electrical equipment). Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Advice for firefighters

Protective actions during firefighting

Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Avoid discharge to the aquatic environment. Control runoff water by containing and keeping it out of sewers and watercourses. If the risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighting

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots, and gloves provide a basic level of protection for chemical incidents.

6 – Accidental release measures

Personal precautions, protective equipment, and emergency procedures

Personal Precautions

Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into the spilled material.

Environmental precautions

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleanup

Methods for cleaning

Contain and remove the spillage, soaking up the residue with non-flammable absorbent. Place in an adequate container for immediate disposal. Eliminate sources of ignition. For waste disposal see Section 13.

Reference to other sections

For personal protection see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For disposal see section 13.

7 – Handling and storage

Precautions for safe handling

Usage precautions

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Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink, and animal feeding stuff. Keep container tightly sealed when not in use. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers. For precautions see Section 2.

Advice on general occupational hygiene

Promptly wash if in contact with skin. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.

Conditions for safe storage, including any Incompatibilities

Storage precautions

Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a cool, well-ventilated place. Keep containers upright. Protect containers from damage. Keep in a fresh and dry place, avoiding direct sunlight. Keep container tightly sealed, in a fireproof place.

Storage class

Miscellaneous hazardous material storage. Preferably in a well-ventilated solvent cabinet.

Specific end uses

The identified uses for this product are in Section 1.

8 - Exposure controls/personal protection

Control parameters

Occupational exposure limits:

OSHA Permissible Exposure Limit (PEL):

Contains no substances with occupational exposure limit values.

Hazardous components without workplace control parameters.

Protective equipment



Engineering control measures

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Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Eye/Face protection

Wear safety glasses with side-shields.

Hand protection

Avoid skin contact. Wear protective clothes and solvent resistant gloves (nitrile).

Other skin and body protection

Use engineering controls to reduce air contamination to permissible exposure level. Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor contact.

Hygiene measures

Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with a multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure

Do not discharge into drains. Avoid the release of this product to the environment.

9 - Physical and chemical properties

Appearance	Colorless liquid.	Water miscibility @ 20 °C, g/L	0.8 (Low miscibility)
Odor threshold	No data available.	Solubility (other)	No data available.
Melting point/Freezing point, °C	-73.1	Partition coefficient, log Pow @ 25 °C	2.83 (EPI Suite estimation)
Boiling point, °C	168	Autoignition temperature, °C	378
Flash point	41	Decomposition temperature, °C	No data available.
Evaporation rate	0.2		
Upper / lower	Upper explosion limit: 6.6 v/v.		

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flammability or/and explosive limits	%/ Lower explosion limit: 1.03 v/v. %	Dynamic viscosity @ 25 °C, cP	No data available.
Vapor pressure @ 20 °C, kPa	0.223 @ 25 °C (EPI Suite estimation)	Explosive properties	Not classified.
Vapor density (air=1)	5	Oxidizing properties	No data available.
Relative density @ 25 °C, g/cm³	0.870	Flammability	Flammable liquid.
		Surface tension @ 20 °C, mN/m	26.4 (lit.)

10 - Stability and reactivity

Reactivity	No data available.
Chemical stability	Stable under normal storage conditions.
Possibility of hazardous reactions	Hazardous polymerization do not occur under normal conditions.
Incompatible materials	Strong oxidizing agents. Strong bases. Strong acids.
Conditions to avoid	Ignition sources.
Hazardous decomposition products	No data available.

11 - Toxicological information

Acute toxicity - oral

Acute toxicity - oral (LD50,mg/kg)	>14,000
Species	Rat
Notes (oral LD50)	Based on available data the classification criteria are not met.

Acute toxicity - dermal

Acute toxicity - dermal (LD50,mg/kg)	>14,000
Species	Rabbit
Notes (Dermal LD50)	Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Acute toxicity - inhalation (LC50,dust/mist mg/l)	No data available.
Species	No data available.
Notes (Inhalation LD50)	Based on available data the classification criteria are not met.

Skin corrosion/irritation

Result	Based on available data the classification criteria are not met.
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Serious eye damage/irritation

Result

Based on available data the classification criteria are not met.

Respiratory sensitization

Result

Based on available data the classification criteria are not met.

Skin sensitization

Result

Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro

Based on available data the classification criteria are not met.

Carcinogenicity

IARC

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

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

Fertility

Based on available data the classification criteria are not met.

Specific target organ toxicity

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Additional information

General information

This product is not classified as hazardous.

Inhalation

Vapor may cause dizziness.

Ingestion

It can cause depression of the system central nervous.

Skin contact

Skin irritant.

Eye contact

Based on available data the classification criteria are not met.

Route of entry

Ingestion, Inhalation, skin and/or eye contact.

Target organs

Not specific target organ known.

12 - Ecological information

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Toxicity

Ecotoxicity

Harmful to aquatic life . Large or frequent spills may have dangerous effects on the environment.

Acute toxicity

Toxicity to fish

LC50 (96h) =106 mg/l (Sheepshead minnow).

Aquatic invertebrates

EC50 (48h) =106 mg/l (Amerycamiss bahia)

Aquatic plants

ErC50 (72h)=41.1 mg/l; NOEC (96h)>4.5 mg/L (Algae)

Bacteria

IC50 (16h)= 240mg/l

Chronic toxicity

Toxicity to fish

No data available.

Aquatic invertebrates

No data available.

Aquatic plants

No data available.

Persistence and biodegradability

Persistence and biodegradability

Readily biodegradable (90.1 wt.% (28 days), OECD Test Guideline 301F).

Result: -

Readily biodegradable.

Biodegradation

Readily biodegradable (EPI Suite estimation).

Biological oxygen demand(mg/g)

No data available.

Chemical oxygen demand(mg/g)

No data available

BOD/COD ratio

No data available.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Results of PBT and vPvB

No data available.

Other adverse effect

Harmful to aquatic life. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13 - Disposal considerations

Waste treatment methods

General information

The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of safely. When handling waste, the safety precautions applying to the handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues

Disposal methods

Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Incineration and landfill should only be considered when recycling is not feasible.

14 - Transport information

DOT (US)

UN number: 3272 Class: 3 Packing group: III
Proper shipping name: Esters, n.o.s.(n-Pentyl propionate)
Reportable Quantity (RQ):
Poison Inhalation Hazard:

IMDG

UN number: 3272 Class: 3 Packing group: III,
EMS-No: F-E, S-D
Proper shipping name: Esters, n.o.s.(n-Pentyl propionate)

IATA

UN number: 3272 Class: 3 Packing group: III
Proper shipping name: Esters, n.o.s.(n-Pentyl propionate)
Environmental hazards ADR/RID: no IMDG: no IATA: no

Transport in bulk according to

Annex I or II of MARPOL 73/78 and the
IBC or IGC Code:
Not applicable. (Consult IMO regulations before transporting ocean bulk)

15 - Regulatory information

US Federal Regulations and state regulations

Components of the product are listed in the quoted regulations. For details, please refer to the regulations directly. This list is not exhaustive; please check for other applicable regulations.

This product has been classified by hazard criteria of the Controlled Products Regulations, and the SDS contains all the information required by the Controlled Products Regulations.

US Federal Regulations

SARA 302 Section 302 (Specific toxic chemical listings)

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA Section 311/312 (Specific toxic chemical listings)

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Fire Hazard

SARA Section 313 (Specific toxic chemical listings)

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

RCRA (hazardous waste code)

None of the ingredients are listed.

TSCA (Toxic Substances Control Act)

CAS 624-54-4 is listed on the TSCA inventory.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)

None of the ingredients are listed.

US State Regulations

Proposition 65 (California)

Chemicals are known to cause cancer

None of the chemicals in this product are listed.

Chemicals are known to cause reproductive toxicity for females

None of the chemicals in this product are listed.

Chemicals are known to cause reproductive toxicity for males

None of the chemicals in this product are listed.

Massachusetts Right to Know Components

No components are subject to the Massachusetts Right to Know Act

Pennsylvania Right to Know Components

No components are subject to the Pennsylvania Right to Know Act

New Jersey Right to Know Components

No components are subject to the New Jersey Right to Know Act

Canada

Canadian Domestic Substances List (DSL)

CAS: 624-54-4 is listed on Canada's DSL List.

Canadian NPRI Ingredient Disclosure list (limit 0.1%)

The substance is not specified on any list. There is no control measure imposed to this substance.

Canadian NPRI Ingredient Disclosure list (limit 1%)

The substance is not specified on any list. There is no control measure imposed to this substance.

16 – Other information

Full text of H-Statements referred to under sections 2 and 3

H226 Flammable liquid and vapor.

H402 Harmful to aquatic life.

Flam. Liq. Flammable liquids.

Acute aquatic toxicity.

GHS Column Model 2017 Classification

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Acute health hazards (single exp)	Negligible
Chronic health hazards (repeated exp.)	Negligible
Environmental hazards	Negligible
Physical-chemical hazards	Medium

Further Information

The information above is believed to be accurate and represents the best information available. However, we make no warranty of merchantability or any other warranty, express or implied, on such information and we assume no liability resulting from its use. Users should make their investigations to determine the suitability of the information for their purposes. In no event shall the Inkemia Green Chemicals, Inc. be liable for any claims, losses or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages arising, even if the Inkemia Green Chemicals, Inc. has been advised of the possibility of such damages.

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