

Safety data sheet

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BASF Safety data sheet
Date / Revised: 16.09.2023
Product: **PENTYLACETATE**

Version: 2.0

(30034749/SDS_GEN_TH/EN)

Date of print: 07.10.2025

1. Substance/preparation and manufacturer/supplier identification

Product name:
PENTYLACETATE

Use: Chemical, solvent(s)

Manufacturer/supplier:

BASF (Thai) Limited
23rd Floor, Emporium Tower, 622, Sukhumvit 24 Rd.,
Klongton, Klongtoey, Bangkok 10110, THAILAND
Telephone: +66 2624-1999
Telefax number: +66 2664-9254
E-mail address: Thailand-SDS-info@basf.com

Emergency information:

International emergency number:
Telephone: +49 180 2273-112

2. Hazard identification

Classification according to UN GHS 2009

Classification of the substance and mixture:
Flammable liquids: Cat.3
Skin corrosion/irritation: Cat.3
Hazardous to the aquatic environment - acute: Cat.3

Label elements and precautionary statement:

Pictogram:



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Signal Word:
Warning

Hazard Statement:
H226 Flammable liquid and vapour.
H316 Causes mild skin irritation.
H402 Harmful to aquatic life.

Precautionary Statements (Prevention):

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves and eye protection or face protection.
P243 Take action to prevent static discharges.
P273 Avoid release to the environment.
P241 Use explosion-proof electrical, ventilating and lighting equipment.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P242 Use non-sparking tools.

Precautionary Statements (Response):

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P332 + P313 If skin irritation occurs: Get medical attention.
P370 + P378 In case of fire: Use ... to extinguish.

Precautionary Statements (Storage):

P403 + P235 Store in a well-ventilated place. Keep cool.

Precautionary Statements (Disposal):

P501 Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.
See section 12 - Results of PBT and vPvB assessment.

Repeated exposure may cause skin dryness or cracking.

3. Composition/information on ingredients

Chemical nature

Substance nature: Substance

Reaction mass of 2-methylbutyl acetate and pentyl acetate

Hazardous ingredients

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pentyl acetate

Content (W/W): $\geq 62\%$ - $\leq 70\%$ Flam. Liq.: Cat. 3
CAS Number: 628-63-7 Aquatic Acute: Cat. 3

1-Butanol, 2-methyl-, acetate

Content (W/W): $\geq 26\%$ - $\leq 35\%$ Flam. Liq.: Cat. 3
CAS Number: 624-41-9 Skin Corr./Irrit.: Cat. 3

3-Methylbutylacetate

Content (W/W): $\geq 0\%$ - $\leq 4\%$ Flam. Liq.: Cat. 3
CAS Number: 123-92-2 Skin Corr./Irrit.: Cat. 3
Aquatic Acute: Cat. 3
Aquatic Chronic: Cat. 3

4. First-Aid Measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Wash thoroughly with soap and water

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Note to physician:

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:

| dry powder, water spray, carbon dioxide, foam

Unsuitable extinguishing media for safety reasons:

| water jet

Additional information:

| Use extinguishing measures to suit surroundings.

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Specific hazards:

| Flammable liquid Cool endangered containers with water-spray. See SDS section 7 - Handling and storage.

Special protective equipment:

| Wear a self-contained breathing apparatus. Special protective equipment for firefighters

Further information:

| Evacuate area of all unnecessary personnel. Fight fire from maximum distance.

Further information:

| Extend fire extinguishing measures to the surroundings. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

Personal precautions:

Handle in accordance with good industrial hygiene and safety practice.

Environmental precautions:

Discharge into the environment must be avoided.

Methods for cleaning up or taking up:

| Pick up with suitable appliance and dispose of. Spills should be contained, solidified, and placed in suitable containers for disposal. Dispose of absorbed material in accordance with regulations.

| Additional information: High risk of slipping due to leakage/spillage of product.

| Shut off or stop source of leak. Shut off or stop released substance/product under safe conditions.

| Pack in tightly closed containers for disposal.

7. Handling and Storage

Handling

| Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

| Avoid all sources of ignition: heat, sparks, open flame. Ground all transfer equipment properly to prevent electrostatic discharge.

Storage

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place.

8. Exposure controls and personal protection

Components with occupational exposure limits

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3-Methylbutylacetate, 123-92-2;
TWA value 50 ppm (ACGIHTLV)
STEL value 100 ppm (ACGIHTLV)

1-Butanol, 2-methyl-, acetate, 624-41-9;
STEL value 100 ppm (ACGIHTLV)
TWA value 50 ppm (ACGIHTLV)

pentyl acetate, 628-63-7;
TWA value 50 ppm (ACGIHTLV)
STEL value 100 ppm (ACGIHTLV)
TWA value 100 ppm (OEL (TH))

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:

Chemical resistant protective gloves (EN ISO 374-1)

Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1)

butyl rubber (butyl) - 0.7 mm coating thickness

Manufacturer's directions for use should be observed because of great diversity of types.

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:

Wearing of closed work clothing is required additionally to the stated personal protection equipment. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	liquid
Colour:	colourless
Odour:	ester-like
Odour threshold:	not determined

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pH value:	7.3 (1 %(m), 20 °C)	(pH Meter)
glass transition temperature:	-82 °C	(OECD Guideline 102)
Boiling point:	144.86 °C (1,013.25 hPa)	(measured)
Flash point:	40 °C	(ISO 13736, closed cup)
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	
Flammability (solid/gas):	Flammable.	(derived from flash point)
Lower explosion limit:	For liquids not relevant for classification and labelling., The lower explosion point may be 5 - 15 °C below the flash point.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Ignition temperature:	374 °C	(Directive 92/69/EEC, A.15)
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Self ignition:	Based on its structural properties the product is not classified as self-igniting.	Test type: Spontaneous self-ignition at room-temperature.
Self heating ability:	not applicable, the product is a liquid	
Explosion hazard:	Based on the chemical structure there is no indication of explosive properties.	
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.	
Vapour pressure:	4.91 hPa (20 °C) static	(measured)
Density:	0.875 - 0.877 g/cm3 (20 °C)	(DIN 51757)
Relative density:	0.879 (17 °C)	(OECD Guideline 109)
Relative vapour density (air):	> 1 (20 °C) Heavier than air.	(estimated)
Solubility in water:	1.60 g/l (20 °C)	

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Solubility (qualitative) solvent(s):	organic solvents soluble	
Partitioning coefficient n-octanol/water (log Pow):	2.1 - 2.7 (25 °C; pH value: 6.3)	(OECD Guideline 117)
Adsorption/water - soil:	KOC: 33.79; log KOC: 1.53 Adsorption to solid soil phase is not expected.	(calculated)
Adsorption/water - soil:	KOC: 29.75; log KOC: 1.47 Adsorption to solid soil phase is not expected.	(calculated)
Adsorption/water - soil:	KOC: 28.42; log KOC: 1.45 Adsorption to solid soil phase is not expected.	(calculated)
Surface tension:	Based on chemical structure, surface activity is not to be expected.	
Viscosity, dynamic:	0.96 mPa.s (17.8 °C)	(OECD 114)
	0.77 mPa.s (35.6 °C)	(OECD 114)

10. Stability and Reactivity

Conditions to avoid:
No special precautions other than good housekeeping of chemicals.

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
strong oxidizing agents

Corrosion to metals: Corrosive effects to metal are not anticipated.

Hazardous reactions:
No hazardous reactions when stored and handled according to instructions.

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Acute oral toxicity

Experimental/calculated data:

LD50rat (oral): > 5,000 mg/kg (similar to OECD guideline 401)

Acute inhalation toxicity

LC50 rat (by inhalation): > 19.25 mg/l 4 h (similar to OECD guideline 403)

No mortality was observed. The vapour was tested.

Acute dermal toxicity

LD50 rabbit (dermal): 8,300 mg/kg (similar to OECD guideline 402)

LD50 rabbit (dermal): > 14,000 mg/kg (similar to OECD guideline 402)

Assessment of acute toxicity

Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation.

Symptoms

Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Irritation

Assessment of irritating effects:

Not irritating to the eyes. May cause slight irritation to the skin.

Experimental/calculated data:

Skin corrosion/irritation rabbit: Slightly irritating. (similar to OECD guideline 404)

Serious eye damage/irritation rabbit: non-irritant (similar to OECD guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

Experimental/calculated data:

Guinea pig maximization test guinea pig: Non-sensitizing. (OECD Guideline 406)

Germ cell mutagenicity

Assessment of mutagenicity:

The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture.

Carcinogenicity

Assessment of carcinogenicity:

No data available.

Reproductive toxicity

Assessment of reproduction toxicity:

The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The results were determined in a Screening test (OECD 421/422).

Developmental toxicity

Assessment of teratogenicity:

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Experiences in humans

Experimental/calculated data:

Prolonged contact can result in drying of the skin.

Specific target organ toxicity (single exposure)

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

No adverse effects were observed after repeated inhalative exposure in animal studies.

Aspiration hazard

not applicable

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:

LC50 (96 h) 69 mg/l, *Pimephales promelas* (APHA 1971, static)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates:

EC50 (48 h) 40.9 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The statement of the toxic effect relates to the analytically determined concentration.

Aquatic plants:

EC50 (72 h) > 466 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201, static)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The statement of the toxic effect relates to the analytically determined concentration.

Microorganisms/Effect on activated sludge:

EC20 (30 min) > 1,000 mg/l, (OECD Guideline 209, aerobic)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Chronic toxicity to fish:

No data available regarding toxicity to fish.

Chronic toxicity to aquatic invertebrates:

No data available regarding toxicity to daphnids.

Assessment of terrestrial toxicity:

No data available concerning terrestrial toxicity.

Mobility

Assessment transport between environmental compartments:

The substance will slowly evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is not expected.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Elimination information:

87 % BOD of the ThOD (20 d) (APHA 'Standard Methods', No. 219, 1971) (aerobic, Seawater)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

72 % BOD of the ThOD (20 d) (APHA 'Standard Methods', No. 219, 1971) (aerobic, predominantly domestic sewage, non-adapted)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

57 % BOD of the ThOD (28 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, domestic sewage)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Assessment of stability in water:

No data available.

Information on Stability in Water (Hydrolysis):

No data available.

Bioaccumulation potential

Assessment bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

The product has not been tested. The statement has been derived from the properties of the individual components.

Bioaccumulation potential:

No data available.

Other adverse effects

Adsorbable organically-bound halogen (AOX):
This product contains no organically-bound halogen.

Additional information

Other ecotoxicological advice:
Do not release untreated into natural waters.

13. Disposal Considerations

| Dispose of in accordance with national, state and local regulations.

Contaminated packaging:
| Disposal must be made according to official regulations.

14. Transport Information

Domestic transport:

UN number or ID number: UN 1104
UN proper shipping name: AMYL ACETATES
Transport hazard class(es): 3
Packing group: III
Environmental hazards: no

Special precautions for user: None known

Sea transport

IMDG

UN number or ID number: UN 1104
UN proper shipping name: AMYL ACETATES
Transport hazard class(es): 3
Packing group: III
Environmental hazards: no

Marine pollutant: NO
Special precautions for user: EmS: F-E; S-D

Air transport

IATA/ICAO

UN number or ID number: UN 1104
UN proper shipping name: AMYL ACETATES
Transport hazard class(es): 3
Packing group: III
Environmental hazards: No Mark as dangerous for the environment is needed

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Special precautions for user: None known

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

16. Other Information

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.