

Safety data sheet

Page: 1/14

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 26.09.2016

Version: 6.0

Product: **Pyranol**

(ID no. 30221242/SDS_GEN_EU/EN)

Date of print 27.09.2016

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Pyranol

Chemical name: tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans)

INDEX-Number: 603-101-00-3

CAS Number: 63500-71-0

REACH registration number: 01-2119455547-30-0000

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

Relevant identified uses: Chemical, Chemical for detergents, Chemical for soaps, detergents and cosmetic

Recommended use: Chemical, Chemical for detergents, Chemical for soaps, detergents and cosmetic

For the detailed identified uses of the product see appendix of the safety data sheet.

1.3. Details of the supplier of the safety data sheet

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Operating Division Nutrition and Health

Telephone: +49 621 60-48434

E-mail address: EN-global-safety-data@basf.com

1.4. Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

Eye Dam./Irrit. 2

H319

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elements

Globally Harmonized System, EU (GHS)

Pictogram:



Signal Word:

Warning

Hazard Statement:

H319 Causes serious eye irritation.

Precautionary Statements (Prevention):

P280 Wear eye/face protection.

P264 Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):

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 + P311 If eye irritation persists: Call a POISON CENTER or doctor/physician.

2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

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.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Chemical nature

tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans)

CAS Number: 63500-71-0

EC-Number: 405-040-6

INDEX-Number: 603-101-00-3

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

3.2. Mixtures

Not applicable

SECTION 4: First-Aid Measures

4.1. Description of first aid measures

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

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.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

4.3. Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:

carbon dioxide, dry powder, foam, water spray

5.2. Special hazards arising from the substance or mixture

Burning produces harmful and toxic fumes.

5.3. Advice for fire-fighters

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Fire debris must be disposed of in accordance with official regulations.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with the skin, eyes and clothing. Ensure adequate ventilation. Wear respiratory protection if ventilation is inadequate. Sources of ignition should be kept well clear.

6.2. Environmental precautions

Do not empty into drains.

6.3. Methods and material for containment and cleaning up

For small amounts: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

For large amounts: Dike spillage. Sweep/shovel up. Dispose of absorbed material in accordance with regulations.

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

7.2. Conditions for safe storage, including any incompatibilities

Suitable materials for containers: Stove-lacquer RDL 50, High density polyethylene (HDPE), Low density polyethylene (LDPE)

Further information on storage conditions: Keep container tightly closed and in a well-ventilated place. Protect from the effects of light.

7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

none

PNEC

freshwater: 0.094 mg/l

marine water: 0.0094 mg/l

intermittent release: 0.94 mg/l

sediment (freshwater): 0.412 mg/kg

sediment (marine water): 0.0412 mg/kg

soil: 0.0902 mg/kg

STP: 10 mg/l

DNEL

worker:

Long-term exposure- systemic effects, Inhalation: 12.2 mg/m³

worker:

Long-term exposure- systemic effects, dermal: 3.47 mg/kg

consumer:

Long-term exposure- systemic effects, dermal: 2.08 mg/kg

consumer:

Long-term exposure- systemic effects, Inhalation: 3.62 mg/m³

consumer:

Long-term exposure- systemic effects, oral: 1.04 mg/kg

8.2. Exposure controls

Personal protective equipment

Respiratory protection:

Breathing protection if gases/vapours are formed. Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

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

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

For information regarding environmental exposure controls, see Section 6.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form:	liquid	
Colour:	colourless	
Odour:	flowery	
Odour threshold:	< 100 ppm	
pH value:	No data available.	
Melting point:	< -100 °C (1,013 hPa)	(OECD Guideline 102)
Boiling point:	226.9 °C (1,013.25 hPa)	(measured)
Flash point:	106 °C	(Directive 92/69/EEC, A.9, closed cup)

Flammability:	not flammable	
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:	328 °C	(Directive 92/69/EEC, A.15)
Vapour pressure:	0.01 hPa (20 °C)	(OECD Guideline 104)
	0.26 hPa (50 °C)	(OECD Guideline 104)
Density:	0.95 g/cm ³ (20 °C, 1,013 hPa)	(OECD Guideline 109)
Relative density:	0.95 (20 °C, 1,013 hPa)	(OECD Guideline 109)
Solubility in water:	23.653 g/l (23 °C)	
Partitioning coefficient n-octanol/water (log Kow):	approx. 1.65 (23 °C; pH value: 6 - 7)	(Directive 84/449/EEC, A.8)
Self ignition:	Based on its structural properties the product is not classified as self-igniting.	Test type: Spontaneous self-ignition at room-temperature.
Viscosity, dynamic:	234 mPa.s (20 °C)	(OECD 114)
	39.8 mPa.s (40 °C)	(OECD 114)
Viscosity, kinematic:	247 mm ² /s (20 °C)	(OECD 114)
	42.6 mm ² /s (40 °C)	(OECD 114)
Explosion hazard:	Based on the chemical structure there is no indicating of explosive properties.	
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.	

9.2. Other information

Self heating ability:	It is not a substance capable of spontaneous heating.
pKA:	The substance does not dissociate.

Surface tension:

Based on chemical structure, surface activity is not to be expected.

Grain size distribution:

The substance / product is marketed or used in a non solid or granular form.

Molar mass:

172.27 g/mol

SECTION 10: Stability and Reactivity

10.1. Reactivity

Corrosion to metals: No corrosive effect on metal.

Formation of

Remarks:

flammable gases:

Forms no flammable gases in the presence of water.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.

10.4. Conditions to avoid

Avoid heat.

10.5. Incompatible materials

Substances to avoid:

strong acids, oxidizing agents

10.6. Hazardous decomposition products

water

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

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:

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

Experimental/calculated data:

LD50 rat (oral): > 2,000 mg/kg (OECD Guideline 401)

LD50 rabbit (dermal): > 2,000 mg/kg (OECD Guideline 402)

Irritation

Assessment of irritating effects:

Not irritating to the skin. Eye contact causes irritation.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

Serious eye damage/irritation rabbit: Irritant. (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:

Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic.

Carcinogenicity

No data available.

Reproductive toxicity

Assessment of reproduction toxicity:

No data available.

Developmental toxicity

Assessment of teratogenicity:

No data available.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Based on available Data, the classification criteria are not met.

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

Assessment of repeated dose toxicity:

Adaptive effects were observed after repeated exposure in animal studies.

Aspiration hazard

No aspiration hazard expected.

SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to 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) 354 mg/l, *Oncorhynchus mykiss* (OECD Guideline 203, static)

The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates:

EC50 (48 h) 320 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

The details of the toxic effect relate to the nominal concentration.

Aquatic plants:

EC50 (72 h) > 94 mg/l (growth rate), *Scenedesmus subspicatus* (OECD Guideline 201, static)

Chronic toxicity to fish:

Study scientifically not justified.

Chronic toxicity to aquatic invertebrates:

Study scientifically not justified.

Assessment of terrestrial toxicity:

Study scientifically not justified.

12.2. Persistence and degradability

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria). Poorly biodegradable.

Elimination information:

0 - 10 % CO₂ formation relative to the theoretical value (28 d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic, activated sludge, domestic)

Assessment of stability in water:

According to structural properties, hydrolysis is not expected/probable.

12.3. Bioaccumulative potential

Assessment bioaccumulation potential:

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

12.4. Mobility in soil

Assessment transport between environmental compartments:

Volatility: The substance will not evaporate into the atmosphere from the water surface.

Adsorption in soil: Adsorption to solid soil phase is not expected.

12.5. Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Self classification

12.6. Other adverse effects

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Observe national and local legal requirements.

SECTION 14: Transport Information

Land transport

ADR

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

RID

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable

Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Inland waterway transport

ADN

Not classified as a dangerous good under transport regulations
UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Transport in inland waterway vessel

Not evaluated

Sea transport

IMDG

Not classified as a dangerous good under transport regulations
UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations
UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

14.1. UN number

See corresponding entries for "UN number" for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

14.3. Transport hazard class(es)

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for "Packing group" for the respective regulations in the tables above.

14.5. Environmental hazards

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

14.6. Special precautions for user

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

SECTION 15: Regulatory Information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**Prohibitions, Restrictions and Authorizations

Annex XVII of Regulation (EC) No 1907/2006: Number on List: 3

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

SECTION 16: Other Information

Assessment of the hazard classes according to UN GHS criteria (most recent version)

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 26.09.2016

Version: 6.0

Product: **Pyranol**

(ID no. 30221242/SDS_GEN_EU/EN)

Date of print 27.09.2016

Eye Dam./Irrit. 2A

Any other intended applications should be discussed with the manufacturer. Corresponding occupational protection measurements must be followed.

Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:

Eye Dam./Irrit.

Serious eye damage/eye irritation

H319

Causes serious eye irritation.

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.

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