

MONOPROPYLENE GLYCOL

Material Group: 102698 FEBRUARY 2015

Synonyms: 1,2-Dihydroxypropane, 1,2-Propanediol, 1-2,Propylene Glycol,

Propane-1,2-Diol, Propanediol, Propylene Glycol, MPG STD,

MPG Industrial

Description: Colourless, viscous liquid

<u>CAS NO:</u> 57-55-6 **FORMULA**: $C_3H_8O_2$

<u>EINECS NO:</u> 200-338-0 **MW:** 76.09

<u>Test</u> <u>Specification</u>

Appearance Clear, colourless, free from particles

Assay, calculated (%wt) 99.50 Min
Colour (Pt-Co) 10 Max
Water Content (%wt) 0.3 Max

Typical Properties

Acidity as acetic acid (ppm) 50 Max
Chlorides (ppm) 1.0 Max
Iron (ppm) 1 Max

Specific Gravity @ 20°C 1.0375 – 1.0390

NOTE: THIS PRODUCT IS NOT INTENDED FOR USE IN PHARMACEUTICAL, FOOD (INCLUDING ANIMAL FEED) OR COSMETIC TYPE APPLICATIONS.

Shelf Life: 12 Months

Revision 01

Whilst we believe this data to be correct and reliable, we are not responsible for its interpretation and its use, nor should it be construed as a permission to use any product or process in breach of existing patents. This data does not constitute any warranty other than conformity of the product to current specifications published by the sellers or its suppliers. Any relevant legislation governing the use of the product should be observed.

Univar Local Conditions of Sale apply to sales of all products



We create chemistry

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: 19.02.2015

Version: 3.0

Product: Joncryl® 74-E

(ID no. 30617195/SDS_GEN_GB/EN)

Date of print 20.02.2015

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

1.1. Product identifier

Joncryl® 74-E

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

Relevant identified uses: polymers for inks, varnishes or coatings

1.3. Details of the supplier of the safety data sheet

Company: BASF SE 67056 Ludwigshafen GERMANY Contact address:
BASF plc
PO Box 4, Earl Road, Cheadle Hulme,
Cheadle, Cheshire
SK8 6QG, UNITED KINGDOM

Telephone: +44 161 485-6222

E-mail address: product-safety-north@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

According to Directive 67/548/EEC or 1999/45/EC

Page: 2/14

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

Date / Revised: 19.02.2015

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Possible Hazards:

No particular hazards known.

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.

According to Directive 67/548/EEC or 1999/45/EC

Directive 1999/45/EC ('Preparation Directive')

The product does not require a hazard warning label in accordance with EC Directives.

2.3. Other hazards

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

No specific dangers known, if the regulations/notes for storage and handling are considered.

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.

Page: 3/14

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

Date / Revised: 19.02.2015

Version: 3.0

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SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

Ammonium salt of modified acrylic copolymers, in water

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

Alcohols, C12-16-secondary, ethoxylated, Polymer, starting materials listed in EINECS

Content (W/W): >= 1 % - < 2 % Acute Tox. 4 (oral) Eye Dam./Irrit. 1 H318, H302

ammonia...%

Content (W/W): >= 0.1 % - < 0.2 % Skin Corr./Irrit. 1B CAS Number: 1336-21-6 Eye Dam./Irrit. 1

EC-Number: 215-647-6 STOT SE 3 (irr. to respiratory syst.)

REACH registration number: 01- Aquatic Acute 1 2119488876-14 Aquatic Chronic 2

INDEX-Number: 007-001-01-2 H335, H314, H411, H400

Specific concentration limit:

STOT SE 3, irr. to respiratory syst.: >= 5 %

Hazardous ingredients

according to Directive 1999/45/EC

Alcohols, C12-16-secondary, ethoxylated, Polymer, starting materials listed in EINECS

Content (W/W): >= 1 % - < 2 % CAS Number: 69011-36-5 Hazard symbol(s): Xn R-phrase(s): 41, 22

ammonia...%

Content (W/W): >= 0.1 % - < 0.2 %

CAS Number: 1336-21-6 EC-Number: 215-647-6

REACH registration number: 01-2119488876-14

INDEX-Number: 007-001-01-2 Hazard symbol(s): C, N

Page: 4/14

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

Date / Revised: 19.02.2015

Version: 3.0

Product: Joncryl® 74-E

(ID no. 30617195/SDS_GEN_GB/EN)

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R-phrase(s): 34, 50

For the classifications not written out in full in this section, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, the full text is listed in section 16.

SECTION 4: First-Aid Measures

4.1. Description of first aid measures

Immediately remove contaminated clothing.

If inhaled

If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

On skin contact:

Wash thoroughly with soap and water.

On contact with eyes:

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

On ingestion:

Rinse mouth and then drink plenty of water.

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

Symptoms: No significant reaction of the human body to the product known.

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: water spray, dry powder, foam

5.2. Special hazards arising from the substance or mixture

harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

5.3. Advice for fire-fighters

Further information:

Contaminated extinguishing water must be disposed of in accordance with official regulations.

Page: 5/14

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

Date / Revised: 19.02.2015

Version: 3.0

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(ID no. 30617195/SDS_GEN_GB/EN)

Date of print 20.02.2015

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective clothing.

6.2. Environmental precautions

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material. 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

No special measures necessary provided product is used correctly.

Protection against fire and explosion:

No special precautions necessary.

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and in a cool place.

Storage stability:

Storage temperature: < 45 °C

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

8.2. Exposure controls

Page: 6/14

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

Date / Revised: 19.02.2015

Version: 3.0

Product: Joncryl® 74-E

(ID no. 30617195/SDS_GEN_GB/EN)

(ASTM E70)

Date of print 20.02.2015

Personal protective equipment

Respiratory protection:

Respiratory protection not required.

Hand protection:

Chemical resistant protective gloves (EN 374)

Suitable materials 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), polyvinylchloride (0.7 mm) and other

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.

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

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. Wearing of closed work clothing is required additionally to the stated personal protection equipment.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form: liquid
Colour: off-white
Odour: ammonia-like

Odour threshold:

not determined

pH value: approx. 7.9 - 8.4

Freezing point: 0 °C

Information applies to the solvent.

Boiling point: 100 °C

Information applies to the solvent.

Flash point:

No flash point - Measurement made

up to the boiling point.

Evaporation rate:

not determined

Lower explosion limit:

not determined

Page: 7/14

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

Date / Revised: 19.02.2015 Version: 3.0

Product: Joncryl® 74-E

(ID no. 30617195/SDS_GEN_GB/EN)

Date of print 20.02.2015

Upper explosion limit:

not determined

Ignition temperature:

Based on the water content the

product does not ignite.

Vapour pressure: 23.4 hPa

(20 °C)

Information applies to the solvent.

Density: approx. 1.04 g/cm3

(ISO 2811-3)

(20 °C)
Relative density: approx. 1

(20 °C) Relative vapour density (air):

not determined

Solubility in water: dispersible

(20°C)

Partitioning coefficient n-octanol/water (log Kow):

Study scientifically not justified.

Self ignition: not self-igniting

Thermal decomposition: Stable up to boiling point.

Viscosity, dynamic: approx. 450 - 750 mPa.s (DIN EN ISO 2555 (LV))

(25 °C)

Explosion hazard: not explosive

Fire promoting properties: not fire-propagating

9.2. Other information

Self heating ability: It is not a substance capable of

spontaneous heating.

Hygroscopy: Non-hygroscopic

Surface tension:

not determined

Grain size distribution: The substance / product is marketed or used in a non solid or

granular form.

SECTION 10: Stability and Reactivity

10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

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.

Page: 8/14

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time. Date / Revised: 19.02.2015 Version: 3.0

Product: Joncryl® 74-E

(ID no. 30617195/SDS_GEN_GB/EN)

Date of print 20.02.2015

10.4. Conditions to avoid

See MSDS section 7 - Handling and storage.

10.5. Incompatible materials

Substances to avoid:

No substances known that should be avoided.

10.6. Hazardous decomposition products

Hazardous decomposition products:

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

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Irritation

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (BASF-Test)

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

Serious eye damage/irritation rabbit: Irritant. (BASF-Test)

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

Respiratory/Skin sensitization

Experimental/calculated data:

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

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

Germ cell mutagenicity

Assessment of mutagenicity:

No data was available concerning mutagenic activity.

Carcinogenicity

Assessment of carcinogenicity:

No data available.

Reproductive toxicity

Assessment of reproduction toxicity:

No data available.

Page: 9/14

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

Date / Revised: 19.02.2015

Version: 3.0

Product: Joncryl® 74-E

(ID no. 30617195/SDS_GEN_GB/EN)

Date of print 20.02.2015

Developmental toxicity

Assessment of teratogenicity:

No data available.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

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:

Repeated oral uptake of the substance did not cause substance-related effects.

Repeated inhalative uptake of the substance did not cause substance-related effects.

Repeated dermal uptake of the substance did not cause substance-related effects.

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

Aspiration hazard

No aspiration hazard expected.

SECTION 12: Ecological Information

12.1. Toxicity

Toxicity to fish:

LC50 (96 h) > 100 mg/l, Leuciscus idus

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

Aquatic invertebrates:

EC50 (48 h) > 100 mg/l, Daphnia magna (Screening (style of OECD 202), static)

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

Aquatic plants:

EC50 (72 h), algae

No data available.

Microorganisms/Effect on activated sludge:

Page: 10/14

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

Date / Revised: 19.02.2015

Version: 3.0

Product: Joncryl® 74-E

(ID no. 30617195/SDS_GEN_GB/EN)

Date of print 20.02.2015

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

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.

12.2. Persistence and degradability

Assessment biodegradation and elimination (H2O):

The polymer component of the product is poorly biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation potential:

At the present state of knowledge, no negative ecological effects are expected.

12.4. Mobility in soil

Assessment transport between environmental compartments:

Volatility: The substance will not evaporate into the atmosphere from the water surface. The product has not been tested. The statement has been derived from the properties of the individual components.

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.

12.6. Other adverse effects

The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

12.7. Additional information

The product contains: <= 10 (W/W) PPM Lead, <= 10 (W/W) PPM Chromium, <= 10 (W/W) PPM cadmium (pyrophoric), <= 10 (W/W) PPM Tin

Add. remarks environm. fate & pathway:

Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations.

Page: 11/14

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

Date / Revised: 19.02.2015

Version: 3.0

Product: Joncryl® 74-E

(ID no. 30617195/SDS_GEN_GB/EN)

Date of print 20.02.2015

Other ecotoxicological advice:

According to experience, the material has no harmful effect on the environment.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Must be disposed of or incinerated in accordance with local regulations.

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).

This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments (United Kingdom)

Contaminated packaging:

Uncontaminated packaging can be re-used.

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

SECTION 14: Transport Information

Land transport

ADR

Not classified as a dangerous good under transport regulations

UN number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user

RID

Not classified as a dangerous good under transport regulations

UN number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user

Inland waterway transport

ADN

Page: 12/14

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

Date / Revised: 19.02.2015 Version: 3.0

Product: Joncryl® 74-E

(ID no. 30617195/SDS_GEN_GB/EN)

Date of print 20.02.2015

Not classified as a dangerous good under transport regulations

UN number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user

Transport in inland waterway vessel:

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): Packing group: Not applicable Not applicable

Environmental hazards: Not applicable Special precautions for None known

user

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

UN number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user

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)

Page: 13/14

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

Date / Revised: 19.02.2015

Version: 3.0

Product: Joncryl® 74-E

(ID no. 30617195/SDS_GEN_GB/EN)

Date of print 20.02.2015

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 MARPOL73/78 and the IBC Code

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

SECTION 15: Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

The data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, for example, 'COSHH Essentials' (United Kingdom).

This product is classified under the Chemicals (Hazard Information and Packaging) Regulations, (CHIP) (United Kingdom).

15.2. Chemical Safety Assessment

The obligation to register acc. to the REACH Regulation (EC) No 1907/2006 does not apply to polymers.

SECTION 16: Other Information

This product is of industrial quality and unless otherwise specified or agreed intended exclusively for industrial use. This includes the mentioned and recommended usage. Any other intended applications should be discussed with the manufacturer. In particular this concerns the application for products that are the object of special standards and regulations.

Full text of the classifications, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, if mentioned in section 2 or 3:

Page: 14/14

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

Date / Revised: 19.02.2015

Version: 3.0

Product: Joncryl® 74-E

(ID no. 30617195/SDS_GEN_GB/EN)

Date of print 20.02.2015

Harmful. Xn С Corrosive. Ν Dangerous for the environment. 41 Risk of serious damage to eyes. 22 Harmful if swallowed. 34 Causes burns. 50 Very toxic to aquatic organisms. Serious eye damage/eye irritation Eve Dam./Irrit. Acute Tox. Acute toxicity Skin Corr./Irrit. Skin corrosion/irritation STOT SE Specific target organ toxicity — single exposure Hazardous to the aquatic environment - acute **Aquatic Acute Aquatic Chronic** Hazardous to the aquatic environment - chronic

H318 Causes serious eye damage. H302 Harmful if swallowed.

H335 May cause respiratory irritation.

H314 Causes severe skin burns and eye damage. H411 Toxic to aquatic life with long lasting effects.

H400 Very toxic to aquatic life.

If you have any queries relating to this MSDS, it's contents or any other product safety related questions, please write to the following e-mail address: product-safety-north@basf.com

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. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. 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.