



Safety Data Sheet dated 13/10/2013, version 1

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

1.1. Product identifier

Trade name: POLIOL S-004
Product type and use: Formulated polioli

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

Recommended use:

Production, packaging and distribution of the product
Industrial use for production of rigid or flexible polyurethane foams by pouring ,
spraying or moulding
Industrial use for production of polyurethane elastomers by pouring , spraying or
moulding

1.3. Details of the supplier of the safety data sheet

Company:
SYNTHESIA INTERNACIONAL, S.L.U. - C/. Argent, 3 - 08775 - Castellbisbal - Barcelona -
ESPAÑA
SYNTHESIA INTERNACIONAL, S.L.U. - Phone nr.(34) 93.682.13.00
Competent person responsible for the safety data sheet:
info@synte.es

1.4. Emergency telephone number

(+34) 93 682 13 00. Horario de oficina (during business hours). Información química y sobre
riesgos físicos (physical hazards and chemical information)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Directive criteria, 67/548/CE, 99/45/EC and following amendments thereof:

Properties / Symbols:

 Xn Harmful

R Phrases:

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic
environment.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements



Xn

Symbols:

 Xn Harmful

R Phrases:

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic
environment.

S Phrases:

S25 Avoid contact with eyes.
S36/37 Wear suitable protective clothing and gloves.
S60 This material and its container must be disposed of as hazardous waste.

Special provisions according to Annex XVII of REACH and subsequent amendments:
None

2.3. Other hazards
vPvB Substances: None - PBT Substances: None
Other Hazards:
No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances
N.A.

3.2. Mixtures

Hazardous components within the meaning of EEC directive 67/548 and CLP regulation and related classification:

20% - 25% Tricloropropilfosfato

REACH No.: 01-2119486772-26-XXXX, CAS: 13674-84-5, EC: 237-158-7

Xn; R22

⚠ 3.1/4/Oral Acute Tox. 4 H302

1% - 3% 2-dimethylaminoethanol; N,N-dimethylethanolamine

REACH No.: 01-2119492298-24-XXXX, Index number: 603-047-00-0, CAS: 108-01-0, EC: 203-542-8

Xn,C; R10-20/21/22-34

⚠ 3.8/3 STOT SE 3 H335

⚠ 2.6/3 Flam. Liq. 3 H226

⚠ 3.1/4/Dermal Acute Tox. 4 H312

⚠ 3.1/3/Inhal Acute Tox. 3 H331

⚠ 3.2/1B Skin Corr. 1B H314

⚠ 3.1/4/Oral Acute Tox. 4 H302

0.25% - 0.5% Dibutil tin dilaurat

REACH No.: 01-2119496068-27-XXXX, CAS: 77-58-7, EC: 201-039-8

T,Xn,Xi,N; R38-22-60-61-68-48/25-50/53

⚠ 3.3/1 Eye Dam. 1 H318

⚠ 3.4.2/1 Skin Sens. 1 H317

⚠ 4.1/A1 Aquatic Acute 1 H400

⚠ 3.7/1B Repr. 1B H360Fd

⚠ 3.8/1 STOT SE 1 H370

⚠ 3.2/1A Skin Corr. 1A H314

⚠ 3.5/2 Muta. 2 H341

⚠ 3.9/1 STOT RE 1 H372

⚠ 4.1/C1 Aquatic Chronic 1 H410

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).
Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
Protect uninjured eye.

In case of Ingestion:

Do NOT induce vomiting.
Give nothing to eat or drink.

In case of Inhalation:

If breathing is irregular or stopped, administer artificial respiration.
In case of inhalation, consult a doctor immediately and show him packing or label.
After contact with skin, wash immediately with soap and plenty of water.

4.2. Most important symptoms and effects, both acute and delayed
None

4.3. Indication of any immediate medical attention and special treatment needed
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment:
None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
CO₂, Foam, Chemical powders, according to the materials involved in the fire, Water.
Carbon dioxide (CO₂).
Extinguishing media which must not be used for safety reasons:
None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.
Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.
Provide adequate ventilation.
Use appropriate respiratory protection.
See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up
Wash with plenty of water.

6.4. Reference to other sections
See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Exothermically reacts in contact with isocyanates.

Use localized ventilation system.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

Store at : 15 °C - 25 °C

Should be stored under cover. Avoid direct exposure to sunlight.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2-dimethylaminoethanol; N,N-dimethylethanolamine - CAS: 108-01-0

- Notes: WEL

DNEL Exposure Limit Values

N.A.

PNEC Exposure Limit Values

N.A.

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Use adequate protective respiratory equipment.

Thermal Hazards:

None

Environmental exposure controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Liquid
Colour:	Colourless or yellowish
Odour:	Slight ammonia odor
Odour threshold:	Not available
pH:	> 11
Melting point / freezing point:	Not available
Initial boiling point and boiling range:	Not available
Solid/gas flammability:	Not available
Upper/lower flammability or explosive limits:	Not available
Vapour density:	Not available
Flash point:	> 170 °C
Evaporation rate:	Not available
Vapour pressure:	Not available
Relative density:	1,06 g/cm ³ 20 °C
Solubility in water:	No
Solubility in oil:	No
Partition coefficient (n-octanol/water):	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	300 cps 22 °C
Explosive properties:	Not available
Oxidizing properties:	Not available

9.2. Other information

Miscibility:	Not available
Fat Solubility:	Not available
Conductivity:	Not available
Substance Groups relevant properties	Not available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

Substances to avoid:

Exothermically reacts in contact with isocyanates.

None

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the mixture:

N.A.

Toxicological information of the main substances found in the mixture:

2-dimethylaminoethanol; N,N-dimethylethanolamine - CAS: 108-01-0

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 1183 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat = 5.9 mg/l - Duration: 4h

Test: LD50 - Route: Skin - Species: Rabbit = 1219 mg/kg

If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2-dimethylaminoethanol; N,N-dimethylethanolamine - CAS: 108-01-0

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: SYN02 146.6 mg/l - Duration h: 96

Endpoint: CE50 - Species: SYN01 98.4 mg/l - Duration h: 48

Endpoint: CE50 - Species: SYN04 66.1 mg/l - Duration h: 72

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

2-dimethylaminoethanol; N,N-dimethylethanolamine - CAS: 108-01-0

Bioaccumulation: Not bioaccumulative - Test: N.A. N.A. - Duration: N.A. - Notes: N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

ADR

14.1. UN number

N.A.

- 14.2. UN proper shipping name
N.A.
- 14.3. Transport hazard class(es)
N.A.
- 14.4. Packing group
N.A.
- 14.5. Environmental hazards
N.A.
- 14.6. Special precautions for user
N.A.

IMDG

- 14.1. UN number
N.A.
- 14.2. UN proper shipping name
N.A.
- 14.3. Transport hazard class(es)
N.A.
- 14.4. Packing group
N.A.
- 14.5. Environmental hazards
N.A.
- 14.6. Special precautions for user
N.A.
- 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
N.A.

IATA

- 14.1. UN number
N.A.
- 14.2. UN proper shipping name
N.A.
- 14.3. Transport hazard class(es)
N.A.
- 14.4. Packing group
N.A.
- 14.5. Environmental hazards
N.A.
- 14.6. Special precautions for user
N.A.

SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
 - Dir. 67/548/EEC (Classification, packaging and labelling of dangerous substances)
 - Dir. 99/45/EC (Classification, packaging and labelling of dangerous preparations)
 - Dir. 98/24/EC (Risks related to chemical agents at work)
 - Dir. 2000/39/EC (Occupational exposure limit values)
 - Dir. 2006/8/EC
 - Regulation (EC) n. 1907/2006 (REACH)
 - Regulation (EC) n. 1272/2008 (CLP)
 - Regulation (EC) n. 790/2009 (ATP 1 CLP)
 - Regulation (EU) n. 453/2010 (Annex I)
 - Regulation (EU) n. 286/2011 (ATP 2 CLP)
- Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Directive 82/501/EEC ('Activities linked to risks of serious accidents') and subsequent amendments.

Regulation (EC) nr 648/2004 (detergents).
1999/13/EC (VOC directive)

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of phrases referred to in Section 3:

R10 Flammable.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R22 Harmful if swallowed.

R34 Causes burns.

R38 Irritating to skin.

R48/25 Toxic: danger of serious damage to health by prolonged exposure if swallowed.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R60 May impair fertility.

R61 May cause harm to the unborn child.

R68 Possible risk of irreversible effects.

H302 Harmful if swallowed.

H335 May cause respiratory irritation.

H226 Flammable liquid and vapour.

H312 Harmful in contact with skin.

H331 Toxic if inhaled.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H400 Very toxic to aquatic life.

H360F_d May damage fertility. Suspected of damaging the unborn child.

H370 Causes damage to organs.

H341 Suspected of causing genetic defects.

H372 Causes damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

This safety data sheet has been completely updated in compliance to Regulation 453/2010/EU.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
Nostrand Reinold

CCNL - Appendix 1

Insert further consulted bibliography

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of
Dangerous Goods by Road.

CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
LTE:	Long-term exposure.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE:	Short-term exposure.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWATLV:	Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
WGK:	German Water Hazard Class.
N.A.:	N.A.
N.D.:	