



Safety Data Sheet

ARMY

Safety Data Sheet dated 25/8/2023, version 1 25/8/2023

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

1.1. Product identifier

Mixture identification:

Trade name: ARMY

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

Recommended use:

Spray Paint

1.3. Details of the supplier of the safety data sheet

Company:

COLORPACK s.r.l.

Via B.Cellini 26

20020 Solaro

Milano - Italia

Fax +39 029691714 Tel.+39 029690664 (8.30-17.00 from monday to friday)

Web site: www.colorpack.com E-mail: info@colorpack.com

Competent person responsible for the safety data sheet:

sharon@colorpack.com

1.4. Emergency telephone number

COLORPACK s.r.l. Tel.+39 029690664 (8.30-17.00 from monday to friday)

Centro Antiveleni - Milano - A.O. Ospedale Niguarda Ca' Granda - Piazza Ospedale Maggiore, 3
- Tel. 02 66101029

Centro Antiveleni - Bergamo - A.O. Papa Giovanni XXIII - Piazza OMS, 1 - Tel. 800.883.300

Centro Antiveleni - Pavia - Centro Nazionale di Informazione Tossicologica - Via Salvatore
Maugeri, 10 - Tel. 0382 24444

Centro Antiveleni - Roma - Policlinico "A. Gemelli" - Largo A.Gemelli, 8 - Tel. 06 3054343

Centro Antiveleni - Roma - Policlinico "Umberto I" - Viale del Policlinico, 155 - Tel. 06 49978000

Centro Antiveleni pediatrico - Roma - "Ospedale Pediatrico Bambino Gesù" DEA - Piazza
S.Onofrio, 4 - Tel. 06 68593726

Centro Antiveleni - Napoli - A.O. di Rilievo Nazionale "A.Cardarelli" - Via A.Cardarelli, 9 - Tel.
081 5453333

Centro Antiveleni - Firenze - A.O. "Careggi" U.O. Tossicologia Medica - Largo Brambilla, 3 - Tel.
055 7947819

Centro Antiveleni - Foggia - A.O. Universitaria - V.le Luigi Pinto, 1 - Tel. 800.183.459 / 0881
736003

Centro Antiveleni - Azienda Ospedaliera Universitaria Integrata (AOUI) di Verona - Piazzale
Aristide Stefani, 1 - Tel. 800.011.858

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

⚠ Danger, Aerosols 1, Extremely flammable aerosol. Pressurized container: may burst if heated.

⚠ Warning, Eye Irrit. 2, Causes serious eye irritation.

⚠ Warning, STOT SE 3, May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



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Danger

Hazard statements:

H222, H229 Extremely flammable aerosol. Pressurized container: may burst if heated.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves and eye protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

EUH066 Repeated exposure may cause skin dryness or cracking.

EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

EUH208 Contains N,N-1,6-Hexanediybis[12-hydroxyoctadecanamide]. May produce an allergic reaction.

Contains

acetone; propan-2-one; propanone

n-butyl acetate

butan-1-ol; n-butanol

isobutyl acetate

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration $\geq 0.1\%$

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 the CLP regulation and related classification:

$\geq 30\%$ - $< 40\%$ acetone; propan-2-one; propanone

REACH No.: 01-2119471330-49, Index number: 606-001-00-8, CAS: 67-64-1, EC: 200-662-2

◊ 2.6/2 Flam. Liq. 2 H225

◊ 3.3/2 Eye Irrit. 2 H319

◊ 3.8/3 STOT SE 3 H336

EUH066

$\geq 15\%$ - $< 20\%$ propane

REACH No.: 01-2119486944-21, Index number: 601-003-00-5, CAS: 74-98-6, EC: 200-827-9

◊ 2.2/1A Flam. Gas 1A H220

◊ 2.5 Press. Gas H280

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>= 15% - < 20% n-butyl acetate

REACH No.: 01-2119485493-29, Index number: 607-025-00-1, CAS: 123-86-4, EC: 204-658-1

⚠ 2.6/3 Flam. Liq. 3 H226

⚠ 3.8/3 STOT SE 3 H336

EUH066

>= 5% - < 7% butane

REACH No.: 01-2119474691-32, Index number: 601-004-00-0, CAS: 106-97-8, EC: 203-448-7

⚠ 2.2/1A Flam. Gas 1A H220

⚠ 2.5 Press. Gas H280

DECLK (CLP)*

>= 3% - < 5% 2-butoxyethanol; ethylene glycol monobutyl ether

REACH No.: 01-2119475108-36, Index number: 603-014-00-0, CAS: 111-76-2, EC: 203-905-0

⚠ 3.1/3/Inhal Acute Tox. 3 H331

⚠ 3.1/4/Oral Acute Tox. 4 H302

⚠ 3.2/2 Skin Irrit. 2 H315

⚠ 3.3/2 Eye Irrit. 2 H319

Acute Toxicity Estimate:

ATE - Oral 1200 mg/kg bw

ATE - Inhalation (Vapours) 3 mg/l

>= 2.5% - < 3% isobutane

REACH No.: 01-2119485395-27, Index number: 601-004-00-0, CAS: 75-28-5, EC: 200-857-2

⚠ 2.2/1A Flam. Gas 1A H220

⚠ 2.5 Press. Gas H280

DECLK (CLP)*

>= 2.5% - < 3% xylene (mixture of isomers)

REACH No.: 01-2119488216-32, Index number: 601-022-00-9, CAS: 1330-20-7, EC: 215-535-7

⚠ 2.6/3 Flam. Liq. 3 H226

⚠ 3.10/1 Asp. Tox. 1 H304

⚠ 3.3/2 Eye Irrit. 2 H319

⚠ 3.8/3 STOT SE 3 H335

⚠ 3.9/2 STOT RE 2 H373

⚠ 3.2/2 Skin Irrit. 2 H315

⚠ 3.1/4/Dermal Acute Tox. 4 H312

⚠ 3.1/4/Inhal Acute Tox. 4 H332

4.1/C3 Aquatic Chronic 3 H412

>= 1% - < 2.5% butan-1-ol; n-butanol

REACH No.: 01-2119484630-38, Index number: 603-004-00-6, CAS: 71-36-3, EC: 200-751-6

⚠ 2.6/3 Flam. Liq. 3 H226

⚠ 3.8/3 STOT SE 3 H335

⚠ 3.2/2 Skin Irrit. 2 H315

⚠ 3.3/1 Eye Dam. 1 H318

⚠ 3.8/3 STOT SE 3 H336

⚠ 3.1/4/Oral Acute Tox. 4 H302

>= 1% - < 2.5% isobutyl acetate

REACH No.: 01-2119488971-22, Index number: 607-026-00-7, CAS: 110-19-0, EC: 203-745-1

⚠ 2.6/2 Flam. Liq. 2 H225

⚠ 3.8/3 STOT SE 3 H336

EUH066

>= 1% - < 2.5% propan-2-ol; isopropyl alcohol; isopropanol

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REACH No.: 01-2119457558-25, Index number: 603-117-00-0, CAS: 67-63-0, EC: 200-661-7

⚠ 2.6/2 Flam. Liq. 2 H225

⚠ 3.3/2 Eye Irrit. 2 H319

⚠ 3.8/3 STOT SE 3 H336

>= 1% - < 2.5% titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm]

REACH No.: 01-2119489379-17, Index number: 022-006-00-2, CAS: 13463-67-7, EC: 236-675-5

⚠ 3.6/2 Carc. 2 H351

>= 0.5% - < 1% Silicon dioxide, chemically prepared [CAS-No. 112945-52-5 resp. 7631-86-9]

REACH No.: 01-2119379499-16, CAS: 7631-86-9, EC: 231-545-4

Substance with a Union workplace exposure limit.

>= 0.5% - < 1% 2-methoxy-1-methylethyl acetate

REACH No.: 01-2119475791-29, Index number: 607-195-00-7, CAS: 108-65-6, EC: 203-603-9

⚠ 2.6/3 Flam. Liq. 3 H226

⚠ 3.8/3 STOT SE 3 H336

>= 0.3% - < 0.5% ethyl acetate

REACH No.: 01-2119475103-46, Index number: 607-022-00-5, CAS: 141-78-6, EC: 205-500-4

⚠ 2.6/2 Flam. Liq. 2 H225

⚠ 3.3/2 Eye Irrit. 2 H319

⚠ 3.8/3 STOT SE 3 H336

EUH066

>= 0.1% - < 0.25% N,N-1,6-Hexanediylobis[12-hydroxyoctadecanamide]

REACH No.: 01-0000018057-71, EC: 434-430-9

⚠ 3.4.2/1 Skin Sens. 1 H317

4.1/C4 Aquatic Chronic 4 H413

>= 0.1% - < 0.25% ethylbenzene

REACH No.: 01-2119489370-35, Index number: 601-023-00-4, CAS: 100-41-4, EC: 202-849-4

⚠ 2.6/2 Flam. Liq. 2 H225

⚠ 3.1/4/Inhal Acute Tox. 4 H332

⚠ 3.9/2 STOT RE 2 H373

⚠ 3.10/1 Asp. Tox. 1 H304

>= 0.1% - < 0.25% ethanol; ethyl alcohol

REACH No.: 01-2119457610-43, Index number: 603-002-00-5, CAS: 64-17-5, EC: 200-578-6

⚠ 2.6/2 Flam. Liq. 2 H225

⚠ 3.3/2 Eye Irrit. 2 H319

Specific Concentration Limits:

C >= 50%: Eye Irrit. 2 H319

280 ppm trans-1,3,3,3-Tetrafluoroprop-1-ene

REACH No.: 01-0000019758-54, CAS: 1645-83-6, EC: 471-480-0

⚠ 2.5/C Press Gas (Comp.) H280

135 ppm 2-Pentanone oxime

REACH No.: 01-0000020248-72, CAS: 623-40-5, EC: 484-470-6

⚠ 3.1/4/Oral Acute Tox. 4 H302

⚠ 3.3/2 Eye Irrit. 2 H319

⚠ 3.9/2 STOT RE 2 H373

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4.1/C3 Aquatic Chronic 3 H412

10 ppm Condensation products of dimerised fatty acids, C18-unsaturated, with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine

REACH No.: 01-2119970640-38, CAS: 162627-17-0, EC: 605-296-0

⚠ 3.4.2/1A Skin Sens. 1A H317

6 ppm 1-methoxy-2-propanol; monopropylene glycol methyl ether

REACH No.: 01-2119457435-35, Index number: 603-064-00-3, CAS: 107-98-2, EC: 203-539-1

⚠ 2.6/3 Flam. Liq. 3 H226

⚠ 3.8/3 STOT SE 3 H336

*DECLK (CLP): Substance classified in accordance with Note K, Annex VI of EC Regulation (EC) 1272/2008. The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w 1,3- butadiene (Einecs No 203-450-8), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P210-P403 shall apply.

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 under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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 or Dry chemical fire extinguisher.

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

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The heat causes an increase in pressure inside the container with danger of bursting. In case of fire the aerosols bursting can be projected to distance with violence, with risk of propagation of the fire.

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.

Remove all sources of ignition.

Remove persons to safety.

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.

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.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

Vapours are more weighty than air. Vapours may form explosive mixture with air.

Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

Product belongs to category:	Lower-tier threshold (tonnes)	Upper-tier threshold (tonnes)
P3a	150	500

7.3. Specific end use(s)

None in particular

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

acetone; propan-2-one; propanone - CAS: 67-64-1

EU - TWA(8h): 1210 mg/m³, 500 ppm

ACGIH - TWA(8h): 250 ppm - STEL: 500 ppm - Notes: A4, BEI - URT and eye irr, CNS impair

MAK - TWA(8h): 1200 mg/m³, 500 ppm - STEL: 2400 mg/m³, 1000 ppm - Notes: SWISS

National - TWA(8h): 1210 mg/m³, 500 ppm - STEL: 3620 mg/m³, 1500 ppm - Notes: HR - CROATIA

propane - CAS: 74-98-6

EU - TWA(8h): 1800 mg/m³, 1000 ppm

TLV - TWA(8h): 1800 mg/m³, 1000 ppm - STEL: 3600 mg/m³, 2000 ppm - Notes: AUSTRIA, DENMARK

TLV - TWA(8h): 1500 mg/m³, 800 ppm - STEL: 2000 mg/m³, 1100 ppm - Notes: FINLAND

TLV - TWA(8h): 1400 mg/m³, 778 ppm - STEL: 1800 mg/m³, 1000 ppm - Notes: ROMANIA

TLV - TWA(8h): 1800 mg/m³, 1000 ppm - STEL: 7200 mg/m³, 4000 ppm - Notes: GERMANY

MAK - TWA(8h): 1800 mg/m³, 1000 ppm - STEL: 7200 mg/m³, 4000 ppm - Notes: SWISS

ACGIH - Notes: (D, EX) - Asphyxia

n-butyl acetate - CAS: 123-86-4

ACGIH - TWA(8h): 50 ppm - STEL: 150 ppm - Notes: Eye and URT irr

MAK - TWA(8h): 480 mg/m³, 100 ppm - STEL: 960 mg/m³, 200 ppm - Notes: GERMANY

GVI - TWA(8h): 724 mg/m³, 150 ppm - STEL: 966 mg/m³, 200 ppm - Notes: CROATIA

VLA - TWA(8h): 724 mg/m³, 150 ppm - STEL: 965 mg/m³, 200 ppm - Notes: SPAIN

TLV - TWA(8h): 950 mg/m³ - STEL: 1200 mg/m³ - Notes: CZECH REPUBLIC

VLEP - TWA(8h): 710 mg/m³, 150 ppm - STEL: 940 mg/m³, 200 ppm - Notes: FRANCE

National - TWA(8h): 724 mg/m³, 150 ppm - STEL: 966 mg/m³, 200 ppm - Notes: UNITED KINGDOM

MAK - TWA(8h): 480 mg/m³, 100 ppm - STEL: 960 mg/m³, 200 ppm - Notes: SWISS

EU - TWA(8h): 241 mg/m³, 50 ppm - STEL: 723 mg/m³, 150 ppm

butane - CAS: 106-97-8

EU - TWA(8h): 1450 mg/m³, 600 ppm - STEL: 1810 mg/m³, 750 ppm

TLV - TWA(8h): 1600 mg/m³, 800 ppm - STEL: 3800 mg/m³, 1600 ppm - Notes:

AUSTRIA, DENMARK

TLV - TWA(8h): 1900 mg/m³, 800 ppm - STEL: 2400 mg/m³, 1000 ppm - Notes:

FINLAND

TLV - TWA(8h): 1900 mg/m³, 800 ppm - Notes: FRANCE

TLV - TWA(8h): 2400 mg/m³, 1000 ppm - STEL: 9600 mg/m³, 4000 ppm - Notes:

GERMANY

MAK - TWA(8h): 1900 mg/m³, 800 ppm - STEL: 7600 mg/m³, 3200 ppm - Notes:

SWISS

ACGIH - STEL: 1000 ppm - Notes: (EX) - CNS impair

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

EU - TWA(8h): 98 mg/m³, 20 ppm - STEL: 246 mg/m³, 50 ppm - Notes: Skin

ACGIH - TWA(8h): 20 ppm - Notes: A3, BEI - Eye and URT irr

MAK - TWA(8h): 49 mg/m³, 10 ppm - STEL: 98 mg/m³, 20 ppm - Notes: SWISS

MAK - TWA(8h): 98 mg/m³, 20 ppm - STEL(): 200 mg/m³, 40 ppm - Notes: AUSTRIA

TLV - TWA(8h): 100 mg/m³ - STEL(): 200 mg/m³ - Notes: CZECH REPUBLIC

MAK - TWA(8h): 49 mg/m³, 10 ppm - STEL(): 98 mg/m³, 20 ppm - Notes: GERMANY

VLEP - TWA(8h): 49 mg/m³, 10 ppm - STEL(): 246 mg/m³, 50 ppm - Notes: FRANCE

National - TWA(8h): 123 mg/m³, 25 ppm - STEL(): 246 mg/m³, 50 ppm - Notes: UNITED

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KINGDOM: Skin
National - TWA(8h): 98 mg/m³, 20 ppm - STEL(): 245 mg/m³, 50 ppm - Notes: SPAIN

isobutane - CAS: 75-28-5
EU - TWA(8h): 2400 mg/m³, 1000 ppm - STEL: 9600 mg/m³, 4000 ppm
TLV - TWA(8h): 1900 mg/m³, 800 ppm - STEL: 2400 mg/m³, 1000 ppm - Notes:
FINLAND
MAK - TWA(8h): 1900 mg/m³, 800 ppm - STEL: 7600 mg/m³, 3200 ppm - Notes:
SWISS
ACGIH - STEL: 1000 ppm - Notes: (EX) - CNS impair

xylene (mixture of isomers) - CAS: 1330-20-7
EU - TWA(8h): 221 mg/m³, 50 ppm - STEL: 442 mg/m³, 100 ppm - Notes: Skin
ACGIH - TWA(8h): 20 ppm - Notes: A4, BEI - URT and eye irr; hematologic eff; CNS impair
MAK - TWA(8h): 435 mg/m³, 100 ppm - STEL: 870 mg/m³, 200 ppm - Notes: CH - SWISS

butan-1-ol; n-butanol - CAS: 71-36-3
ACGIH - TWA(8h): 20 ppm - Notes: Eye and URT irr
MAK - TWA(8h): 150 mg/m³, 50 ppm - STEL(): 600 mg/m³, 200 ppm - Notes: AUSTRIA
MAK - TWA(8h): 310 mg/m³, 100 ppm - STEL(): 310 mg/m³, 100 ppm - Notes:
GERMANY
TLV - TWA(8h): 300 mg/m³ - STEL(): 600 mg/m³ - Notes: CZECH REPUBLIC
VLA - TWA(8h): 61 mg/m³, 20 ppm - STEL(): 154 mg/m³, 50 ppm - Notes: SPAIN
VLEP - STEL(): 150 mg/m³, 50 ppm - Notes: FRANCE
GVI - STEL: 150 mg/m³, 50 ppm - Notes: CROATIA: K
MAK - TWA(8h): 150 mg/m³, 50 ppm - STEL: 150 mg/m³, 50 ppm - Notes: SWISS

isobutyl acetate - CAS: 110-19-0
ACGIH - TWA(8h): 50 ppm - STEL: 150 ppm - Notes: Eye and URT irr
MAK - TWA(8h): 480 mg/m³, 100 ppm - STEL: 960 mg/m³, 200 ppm - Notes: SWISS
GVI - TWA(8h): 724 mg/m³, 150 ppm - STEL: 903 mg/m³, 187 ppm - Notes: CROATIA
VLA - TWA(8h): 724 mg/m³, 150 ppm - Notes: SPAIN
TLV - TWA(8h): 950 mg/m³ - STEL: 1200 mg/m³ - Notes: CZECH REPUBLIC
National - TWA(8h): 300 mg/m³, 62 ppm - STEL: 600 mg/m³, 124 ppm - Notes:
GERMANY
VLEP - TWA(8h): 710 mg/m³, 150 ppm - STEL: 940 mg/m³, 200 ppm - Notes: FRANCE
EU - TWA(8h): 241 mg/m³, 50 ppm - STEL: 723 mg/m³, 150 ppm

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0
ACGIH - TWA(8h): 200 ppm - STEL: 400 ppm - Notes: A4, BEI - Eye and URT irr, CNS impair
MAK - TWA(8h): 500 mg/m³, 200 ppm - STEL: 1000 mg/m³, 400 ppm - Notes: SWISS
GVI - TWA(8h): 999 mg/m³, 400 ppm - STEL: 1250 mg/m³, 500 ppm - Notes: CROATIA
VLA - TWA(8h): 500 mg/m³, 200 ppm - STEL: 1000 mg/m³, 440 ppm - Notes: SPAIN - VLB, s
TLV - TWA(8h): 500 mg/m³ - STEL: 1000 mg/m³ - Notes: CZECH REPUBLIC
MAK - TWA(8h): 500 mg/m³, 200 ppm - STEL: 1000 mg/m³, 400 ppm - Notes:
GERMANY
VLEP - STEL: 980 mg/m³, 400 ppm - Notes: FRANCE
National - TWA(8h): 999 mg/m³, 400 ppm - STEL: 1250 mg/m³, 500 ppm - Notes:
UNITED KINGDOM

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm] - CAS: 13463-67-7
ACGIH - TWA(8h): 0.2 mg/m³ - Notes: Nanoscale particles; (R); A3 - LRT irr, pneumoconiosis
ACGIH - TWA(8h): 2.5 mg/m³ - Notes: Finescale particles; (R); A3 - LRT irr, pneumoconiosis

Silicon dioxide, chemically prepared [CAS-No. 112945-52-5 resp. 7631-86-9] - CAS: 7631-86-9
EU - TWA(8h): 3 mg/m³ - Notes: Type of exposure: Respirable Particles (IT)
EU - TWA(8h): 10 mg/m³ - Notes: Type of exposure: Inhalable particles (IT)
MAK - TWA(8h): 4 mg/m³ - Notes: SWISS, SSc

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2-methoxy-1-methylethyl acetate - CAS: 108-65-6

EU - TWA(8h): 275 mg/m³, 50 ppm - STEL: 550 mg/m³, 100 ppm - Notes: Skin

MAK - TWA(8h): 275 mg/m³, 50 ppm - STEL: 275 mg/m³, 50 ppm - Notes: SWISS

MAK - TWA(8h): 270 mg/m³, 50 ppm - STEL: 270 mg/m³, 50 ppm - Notes: GERMANY

National - TWA(8h): 274 mg/m³, 50 ppm - STEL: 548 mg/m³, 100 ppm - Notes: GREAT
BRITAIN

ethyl acetate - CAS: 141-78-6

ACGIH - TWA(8h): 400 ppm - Notes: URT and eye irr

MAK - TWA(8h): 730 mg/m³, 200 ppm - STEL(): 1460 mg/m³, 400 ppm - Notes: SWISS

EU - TWA(8h): 734 mg/m³, 200 ppm - STEL: 1468 mg/m³, 400 ppm

MAK - TWA(8h): 1050 mg/m³, 300 ppm - STEL(): 2100 mg/m³, 600 ppm - Notes:

AUSTRIA

TLV - TWA(8h): 700 mg/m³ - STEL(): 900 mg/m³ - Notes: CZECH REPUBLIC

GVI - TWA(8h): 200 ppm - STEL(): 400 ppm - Notes: CROATIA

VLA - TWA(8h): 1460 mg/m³, 400 ppm - Notes: SPAIN

NIOSH - TWA(8h): 734 mg/m³, 200 ppm - STEL: 1468 mg/m³, 400 ppm - Notes: ITALY

ethylbenzene - CAS: 100-41-4

EU - TWA(8h): 442 mg/m³, 100 ppm - STEL: 884 mg/m³, 200 ppm - Notes: Skin

ACGIH - TWA(8h): 20 ppm - Notes: OTO; A3, BEI - URT & eye irr; ototoxicity; kidney eff;
CNS impair

MAK - TWA(8h): 220 mg/m³, 50 ppm - STEL: 220 mg/m³, 50 ppm - Notes: SWISS

National - TWA(8h): 442 mg/m³, 100 ppm - STEL: 884 mg/m³, 200 ppm - Notes:

CROATIA - K (Skin)

ethanol; ethyl alcohol - CAS: 64-17-5

ACGIH - STEL: 1000 ppm - Notes: A3 - URT irr

MAK - TWA(8h): 960 mg/m³, 500 ppm - STEL: 1920 mg/m³, 1000 ppm - Notes: SWISS
- CH

MAK - TWA(8h): 960 mg/m³, 500 ppm - STEL: 1920 mg/m³, 1000 ppm - Notes:

GERMANY - DE

GVI - TWA(8h): 1900 mg/m³, 100 ppm - Notes: CROATIA - HR

VLA - STEL: 1910 mg/m³, 1000 ppm - Notes: SPAIN - ES

VLEP - TWA(8h): 1900 mg/m³, 1000 ppm - STEL: 9500 mg/m³, 5000 ppm - Notes:

FRANCE - FR

trans-1,3,3,3-Tetrafluoroprop-1-ene - CAS: 1645-83-6

EU - TWA(8h): 4700 mg/m³, 1000 ppm - STEL: 9400 mg/m³, 2000 ppm

MAK - TWA(8h): 4700 mg/m³, 1000 ppm - STEL: 9400 mg/m³, 2000 ppm - Notes:
SWISS

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

EU - TWA(8h): 375 mg/m³, 100 ppm - STEL: 563 mg/m³, 150 ppm - Notes: Skin

ACGIH - TWA(8h): 50 ppm - STEL: 100 ppm - Notes: A4 - Eye and URT irr

MAK - TWA(8h): 360 mg/m³, 100 ppm - STEL: 720 mg/m³, 200 ppm - Notes: CH -
SWISS

MAK - TWA(8h): 187 mg/m³, 50 ppm - STEL(): 187 mg/m³, 50 ppm - Notes: AT -

AUSTRIA

TLV - TWA(8h): 270 mg/m³ - STEL(): 550 mg/m³ - Notes: CZ - CZECH REP.

MAK - TWA(8h): 370 mg/m³, 100 ppm - STEL(): 740 mg/m³, 200 ppm - Notes: DE -
GERMANY

VLEP - TWA(8h): 188 mg/m³, 50 ppm - STEL(): 375 mg/m³, 10 ppm - Notes: FR -

FRANCE

GVI - TWA(8h): 375 mg/m³, 100 ppm - STEL: 568 mg/m³, 150 ppm - Notes: HR -

CROATIA: K (Skin)

DNEL Exposure Limit Values

acetone; propan-2-one; propanone - CAS: 67-64-1

Worker Industry: 186 mg/kg - Worker Professional: 186 mg/kg - Exposure: Human

Dermal - Frequency: Long Term, systemic effects

Worker Industry: 2420 mg/m³ - Worker Professional: 2420 mg/m³ - Exposure: Human

Inhalation - Frequency: Short Term, local effects

Worker Industry: 1210 mg/m³ - Worker Professional: 1210 mg/m³ - Exposure: Human

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Inhalation - Frequency: Long Term, systemic effects
Consumer: 62 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Consumer: 62 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 200 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

n-butyl acetate - CAS: 123-86-4
Worker Industry: 600 mg/m³ - Worker Professional: 600 mg/m³ - Consumer: 300 mg/m³
- Exposure: Human Inhalation - Frequency: Short Term, local effects
Worker Industry: 300 mg/m³ - Worker Professional: 300 mg/m³ - Consumer: 35.7 mg/m³
- Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 11 mg/kg - Worker Professional: 11 mg/kg - Consumer: 6 mg/kg -
Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 2 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2
Worker Industry: 89 mg/kg - Consumer: 89 mg/kg - Exposure: Human Dermal -
Frequency: Short Term, systemic effects
Worker Industry: 1091 mg/m³ - Consumer: 426 mg/m³ - Exposure: Human Inhalation -
Frequency: Short Term, systemic effects
Worker Industry: 246 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term,
local effects
Worker Industry: 125 mg/kg - Consumer: 75 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Worker Industry: 98 mg/m³ - Consumer: 59 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, systemic effects
Consumer: 26.7 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

xylene (mixture of isomers) - CAS: 1330-20-7
Worker Industry: 442 mg/m³ - Worker Professional: 442 mg/m³ - Consumer: 260 mg/m³
- Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Worker Industry: 221 mg/m³ - Worker Professional: 221 mg/m³ - Consumer: 65.3 mg/m³
- Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 212 mg/kg - Worker Professional: 212 mg/kg - Consumer: 125 mg/kg -
Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 12.5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

butan-1-ol; n-butanol - CAS: 71-36-3
Consumer: 3.1 mg/kg - Exposure: Human Oral - Frequency: Short Term, local effects
Worker Industry: 310 mg/m³ - Worker Professional: 310 mg/m³ - Consumer: 155 mg/m³
- Exposure: Human Inhalation - Frequency: Long Term, local effects
Consumer: 1562 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Consumer: 3125 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

isobutyl acetate - CAS: 110-19-0
Worker Industry: 300 mg/m³ - Worker Professional: 300 mg/m³ - Consumer: 35.7 mg/m³
- Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 600 mg/m³ - Worker Professional: 600 mg/m³ - Consumer: 300 mg/m³
- Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Worker Industry: 10 mg/kg - Worker Professional: 10 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Worker Industry: 10 - Worker Professional: 10 mg/kg - Exposure: Human Dermal -
Frequency: Short Term, systemic effects
Consumer: 5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0
Worker Industry: 500 mg/m³ - Worker Professional: 500 mg/m³ - Consumer: 89 mg/m³ -
Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 888 mg/kg - Worker Professional: 888 mg/kg - Consumer: 319 mg/kg -

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Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 26 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Worker Industry: 1000 mg/m³ - Worker Professional: 1000 mg/m³ - Consumer: 178 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Consumer: 51 mg/kg - Exposure: Human Oral - Frequency: Short Term, systemic effects
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm] - CAS: 13463-67-7
Worker Industry: 10 mg/m³ - Worker Professional: 10 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects
Consumer: 700 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Silicon dioxide, chemically prepared [CAS-No. 112945-52-5 resp. 7631-86-9] - CAS: 7631-86-9
Worker Industry: 4 mg/m³ - Worker Professional: 4 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects
Worker Industry: 4 mg/m³ - Worker Professional: 4 mg/m³ - Frequency: Long Term, systemic effects
2-methoxy-1-methylethyl acetate - CAS: 108-65-6
Consumer: 36 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Worker Industry: 275 mg/m³ - Worker Professional: 275 mg/m³ - Consumer: 33 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 796 mg/kg - Worker Professional: 796 mg/kg - Consumer: 320 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Industry: 550 mg/m³ - Worker Professional: 550 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects
Consumer: 500 mg/kg - Exposure: Human Oral - Frequency: Short Term, systemic effects
ethyl acetate - CAS: 141-78-6
Worker Industry: 734 mg/m³ - Worker Professional: 734 mg/m³ - Consumer: 367 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 1468 mg/m³ - Worker Professional: 1468 mg/m³ - Consumer: 734 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Worker Industry: 63 mg/kg - Worker Professional: 63 mg/kg - Consumer: 37 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 4.5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
N,N-1,6-Hexanediyldis[12-hydroxyoctadecanamide]
Worker Industry: 35.24 mg/m³ - Worker Professional: 35.24 mg/m³ - Consumer: 5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Worker Industry: 10 mg/kg - Worker Professional: 10 mg/kg - Consumer: 5 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Industry: 10 mg/kg - Worker Professional: 10 mg/kg - Consumer: 5 mg/kg - Exposure: Human Oral - Frequency: Short Term (acute)
Consumer: 8.69 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 8.69 mg/m³ - Exposure: Human Oral - Frequency: Short Term (acute)
ethylbenzene - CAS: 100-41-4
Worker Industry: 77 mg/m³ - Worker Professional: 77 mg/m³ - Consumer: 15 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 293 mg/m³ - Worker Professional: 293 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Worker Industry: 180 mg/kg - Worker Professional: 180 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 1.6 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
ethanol; ethyl alcohol - CAS: 64-17-5
Worker Industry: 950 mg/m³ - Worker Professional: 950 mg/m³ - Consumer: 114 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 343 mg/kg - Worker Professional: 343 mg/kg - Consumer: 206 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 87 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Worker Industry: 1900 mg/m³ - Worker Professional: 1900 mg/m³ - Consumer: 950

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mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects
trans-1,3,3,3-Tetrafluoroprop-1-ene - CAS: 1645-83-6
Worker Industry: 3902 mg/m³ - Worker Professional: 3902 mg/m³ - Consumer: 830 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
2-Pentanone oxime - CAS: 623-40-5
Worker Industry: 25 mg/m³ - Worker Professional: 25 mg/m³ - Consumer: 6.22 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 75 mg/m³ - Worker Professional: 75 mg/m³ - Consumer: 18.66 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Worker Industry: 0.208 mg/kg - Worker Professional: 0.208 mg/kg - Consumer: 0.125 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Industry: 0.624 mg/kg - Worker Professional: 0.624 mg/kg - Consumer: 0.375 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects
Consumer: 0.125 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2
Consumer: 33 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Worker Industry: 369 mg/m³ - Worker Professional: 369 mg/m³ - Consumer: 43.9 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 183 mg/kg - Worker Professional: 183 mg/m³ - Consumer: 78 mg/m³ - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Industry: 553.5 mg/m³ - Worker Professional: 553.5 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Worker Industry: 553.5 mg/m³ - Worker Professional: 553.5 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects

PNEC Exposure Limit Values

acetone; propan-2-one; propanone - CAS: 67-64-1
Target: Freshwater sediments - Value: 30.4 mg/kg
Target: Marine water sediments - Value: 3.04 mg/kg
Target: Soil (agricultural) - Value: 29.5 mg/kg
Target: Fresh Water - Value: 10.6 mg/l
Target: Marine water - Value: 1.06 mg/l
n-butyl acetate - CAS: 123-86-4
Target: Fresh Water - Value: 0.18 mg/l
Target: Marine water - Value: 0.018 mg/l
Target: Freshwater sediments - Value: 0.981 mg/kg
Target: Marine water sediments - Value: 0.098 mg/kg
Target: Soil (agricultural) - Value: 0.09 mg/kg
2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2
Target: Freshwater sediments - Value: 34.6 mg/kg
Target: Marine water sediments - Value: 3.46 mg/kg
Target: Soil (agricultural) - Value: 2.33 mg/kg
Target: Fresh Water - Value: 8.8 mg/l
Target: Marine water - Value: 0.88 mg/l
xylene (mixture of isomers) - CAS: 1330-20-7
Target: Fresh Water - Value: 0.327 mg/l
Target: Marine water - Value: 0.327 mg/l
Target: Freshwater sediments - Value: 12.46 mg/kg
Target: Marine water sediments - Value: 12.46 mg/kg
Target: Soil (agricultural) - Value: 2.31 mg/l
butan-1-ol; n-butanol - CAS: 71-36-3
Target: Fresh Water - Value: 0.082 mg/l
Target: Marine water - Value: 0.0082 mg/l
Target: Freshwater sediments - Value: 0.178 mg/l
Target: Soil (agricultural) - Value: 0.017 mg/kg
Target: Microorganisms in sewage treatments - Value: 2476 mg/l
isobutyl acetate - CAS: 110-19-0
Target: Fresh Water - Value: 0.17 mg/l

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Target: Marine water - Value: 0.017 mg/l
Target: Freshwater sediments - Value: 0.877 mg/kg
Target: Marine water sediments - Value: 0.0877 mg/kg
Target: Microorganisms in sewage treatments - Value: 200 mg/l
propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0
Target: Food chain - Value: 160 mg/kg
Target: Fresh Water - Value: 140.9 mg/l
Target: Marine water - Value: 140.9 mg/l
Target: Freshwater sediments - Value: 552 mg/kg
Target: Soil (agricultural) - Value: 28 mg/kg
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm] - CAS: 13463-67-7
Target: Fresh Water - Value: 0.184 mg/l
Target: Freshwater sediments - Value: 1000 mg/kg
Target: Marine water - Value: 0.0184 mg/l
Target: Marine water sediments - Value: 100 mg/kg
Target: Soil (agricultural) - Value: 100 mg/kg
2-methoxy-1-methylethyl acetate - CAS: 108-65-6
Target: Fresh Water - Value: 0.635 mg/l
Target: Freshwater sediments - Value: 3.29 mg/kg
Target: Marine water sediments - Value: 0.329 mg/kg
Target: Microorganisms in sewage treatments - Value: 100 mg/l
ethyl acetate - CAS: 141-78-6
Target: Marine water - Value: 0.024 mg/l
Target: Fresh Water - Value: 0.24 mg/l
Target: Freshwater sediments - Value: 1.15 mg/kg
Target: Microorganisms in sewage treatments - Value: 650 mg/l
Target: Soil (agricultural) - Value: 0.148 mg/kg
N,N-1,6-Hexanediylbis[12-hydroxyoctadecanamide]
Target: Fresh Water - Value: 0.2 mg/l
Target: Marine water - Value: 0.02 mg/l
Target: Microorganisms in sewage treatments - Value: 10 mg/l
Target: Freshwater sediments - Value: 860 mg/kg
Target: Marine water sediments - Value: 86 mg/kg
ethylbenzene - CAS: 100-41-4
Target: Fresh Water - Value: 0.1 mg/l
Target: Marine water - Value: 0.01 mg/l
Target: Freshwater sediments - Value: 13.7 mg/kg
Target: Marine water sediments - Value: 1.37 mg/kg
Target: Soil (agricultural) - Value: 2.68 mg/kg
ethanol; ethyl alcohol - CAS: 64-17-5
Target: Fresh Water - Value: 0.96 mg/l
Target: Marine water - Value: 0.79 mg/l
Target: Soil (agricultural) - Value: 0.63 mg/kg
Target: Freshwater sediments - Value: 3.6 mg/kg
Target: Marine water sediments - Value: 2.9 mg/kg
trans-1,3,3,3-Tetrafluoroprop-1-ene - CAS: 1645-83-6
Target: Fresh Water - Value: 0.117 mg/l
2-Pentanone oxime - CAS: 623-40-5
Target: Fresh Water - Value: 0.088 mg/l - Notes:: Assessment factor: 1000
Target: Marine water - Value: 0.0088 mg/l - Notes:: Assessment factor: 1000
Target: Freshwater sediments - Value: 05 mg/kg
Target: Marine water sediments - Value: 0.05 mg/kg
Target: Soil (agricultural) - Value: 0.05 mg/kg
1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2
Target: Fresh Water - Value: 10 mg/l
Target: Freshwater sediments - Value: 52.3 mg/kg
Target: Marine water sediments - Value: 5.2 mg/kg

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Target: Marine water - Value: 1 mg/l

Target: Soil (agricultural) - Value: 4.59 mg/kg

Biological Exposure Index

acetone; propan-2-one; propanone - CAS: 67-64-1

Value: 25 mg/L - medium: Urine - Biological Indicator: Acetone in urine - Sampling Period:

End of turn

8.2. Exposure controls

Eye protection:

Eye glasses with side protection.

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

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Physical state:	Liquid	--	--
Colour:	Pigmented	--	--
Odour:	Characteristic	--	--
Melting point/freezing point:	N.A.	--	--
Boiling point or initial boiling point and boiling range:	N.A.	--	--
Flammability:	Flammable	--	--
Lower and upper explosion limit:	1.8 ÷ 9.5 % Vol.	--	--
Flash point:	<0 °C	--	--
Auto-ignition temperature:	>400 °C	--	--
Decomposition temperature:	N.A.	--	--
pH:	Not Relevant	--	--
Kinematic viscosity:	>20,5mm ² /s (40 °C)	--	--
Solubility in water:	NO	--	--

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Solubility in oil:	N.A.	--	--
Partition coefficient n-octanol/water (log value):	N.A.	--	--
Vapour pressure:	4.5 bar +/- 0.5 20 °C	--	--
Density and/or relative density:	0.75 +/- 0.05	--	--
Relative vapour density:	>1 (air=1)	--	--
Deformation Pressure:	15 bar	--	--
Explosion Pressure:	16 ÷ 20 bar	--	--
Volatile organic compounds - VOC	675 g/l	--	--
Volatile organic compounds - VOC	90 %	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

- 9.2. Other information
No other relevant information

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
None
- 10.4. Conditions to avoid
Stable under normal conditions.
- 10.5. Incompatible materials
Avoid contact with combustible materials. The product could catch fire.
- 10.6. Hazardous decomposition products
None.

SECTION 11: Toxicological information

- 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Toxicological information of the product:
ARMY
- a) acute toxicity
Not classified
Based on available data, the classification criteria are not met
- b) skin corrosion/irritation
Not classified
Based on available data, the classification criteria are not met

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- c) serious eye damage/irritation
The product is classified: Eye Irrit. 2 H319
- d) respiratory or skin sensitisation
Not classified
Based on available data, the classification criteria are not met
- e) germ cell mutagenicity
Not classified
Based on available data, the classification criteria are not met
- f) carcinogenicity
Not classified
Based on available data, the classification criteria are not met
- g) reproductive toxicity
Not classified
Based on available data, the classification criteria are not met
- h) STOT-single exposure
The product is classified: STOT SE 3 H336
- i) STOT-repeated exposure
Not classified
Based on available data, the classification criteria are not met
- j) aspiration hazard
Not classified
Based on available data, the classification criteria are not met

Toxicological information of the main substances found in the product:

acetone; propan-2-one; propanone - CAS: 67-64-1

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 5800 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit = 7400 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat = 76 mg/l - Duration: 4h

b) skin corrosion/irritation:

Test: Skin Irritant Positive

c) serious eye damage/irritation:

Test: Eye Irritant Positive

propane - CAS: 74-98-6

a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Rat = 800000 ppm - Duration: 15MIN

Test: LC50 - Route: Inhalation - Species: Rat = 14442738 mg/m³ - Duration: 15MIN

Test: LC50 - Route: Inhalation - Species: Rat = 1443 mg/l - Duration: 15MIN

Test: LC50 - Route: Inhalation - Species: Mouse = 260000 ppm - Duration: 4h

e) germ cell mutagenicity:

Test: Mutagenesis Negative - Notes: METHOD: OECD 471

Test: Mutagenesis Negative - Notes: METHOD: OECD 474

Test: NOAEL - Route: Inhalation - Species: Rat = 21641 mg/l - Duration: 24H - Notes:
METHOD: OECD TG 422

g) reproductive toxicity:

Test: NOAEL - Route: Inhalation - Species: Rat = 21641 mg/l - Duration: 24H - Notes:
METHOD: OECD TG 422

i) STOT-repeated exposure:

Test: NOAEL - Route: Inhalation Gas - Species: Rat = 7.214 mg/l - Duration: 24H

n-butyl acetate - CAS: 123-86-4

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 10760 mg/kg - Source: (FEMALE)

Test: LD50 - Route: Skin - Species: Rabbit = 14112 mg/kg - Source: OCSE 402

Test: LC50 - Route: Inhalation - Species: Rat > 21 mg/l - Duration: 4h - Source: OCSE
403

butane - CAS: 106-97-8

a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Rat = 658 mg/l - Duration: 4h

Test: LC50 - Route: Inhalation - Species: Rat = 274200 ppm - Duration: 4h

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- e) germ cell mutagenicity:
Test: Mutagenesis Negative - Notes: METHOD: OECD 473
Test: Mutagenesis Negative - Notes: METHOD: OECD 474
Test: NOAEL - Route: Inhalation - Species: Rat = 21394 mg/l - Duration: 24H - Notes:
METHOD: OECD TG 422
- g) reproductive toxicity:
Test: NOAEL - Route: Inhalation - Species: Rat = 21394 mg/l - Duration: 24H - Notes:
METHOD: OECD TG 422
- i) STOT-repeated exposure:
Test: NOAEL - Route: Inhalation Gas - Species: Rat = 21394 mg/l - Duration: 24H -
Notes: METHOD: OECD 422
Test: NOAEL - Route: Inhalation Gas - Species: Rat = 4000-16000 mg/l - Duration: 6H
- 2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2
- a) acute toxicity
ATE - Oral 1200 mg/kg bw
ATE - Inhalation (Vapours) 3 mg/l
Test: LD50 - Route: Oral - Species: Rat = 1300 ml/kg
Test: LC50 - Route: Inhalation - Species: Rat 450-900 mg/kg - Duration: 4h
Test: LD50 - Route: Skin - Species: Rabbit 435-2000 mg/kg
- isobutane - CAS: 75-28-5
- a) acute toxicity:
Test: LC50 - Route: Inhalation - Species: Rat = 658 mg/l - Duration: 4h
Test: LC50 - Route: Inhalation - Species: Mouse = 260000 ppm - Duration: 4h
- e) germ cell mutagenicity:
Test: Mutagenesis Negative
Test: Mutagenesis Negative - Notes: METHOD: OECD 474
Test: NOAEL - Route: Inhalation - Species: Rat = 21394 mg/l - Duration: 24H - Notes:
METHOD: OECD TG 422
- g) reproductive toxicity:
Test: NOAEL - Route: Inhalation - Species: Rat = 7131 mg/l - Duration: 24H - Notes:
METHOD: OECD TG 422
- i) STOT-repeated exposure:
Test: NOAEL - Route: Inhalation Gas - Species: Rat = 21.394 mg/l - Duration: 24H -
Notes: METHOD: OECD 422
- xylene (mixture of isomers) - CAS: 1330-20-7
- a) acute toxicity:
Test: LC50 - Route: Inhalation Vapour - Species: Rat = 27124 mg/l - Duration: 4h
Test: LD50 - Route: Oral - Species: Rat = 3523 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 12126 mg/kg
- butan-1-ol; n-butanol - CAS: 71-36-3
- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 2290 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit = 3430 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat > 17.76 mg/l - Duration: 4h
- isobutyl acetate - CAS: 110-19-0
- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 13413 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat > 23.4 mg/l - Duration: 4h
Test: LD50 - Route: Skin - Species: Rabbit > 17400 mg/kg
- propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0
- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 5840 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit = 13900 ml/kg
Test: LC50 - Route: Inhalation Vapour - Species: Rat > 10000 ppm - Duration: 6H
- b) skin corrosion/irritation:
Test: Skin Irritant - Species: Rabbit Negative
- c) serious eye damage/irritation:
Test: Eye Irritant - Species: Rabbit Positive

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g) reproductive toxicity:

Test: Reproductive Toxicity - Route: Oral - Species: Rabbit = 480 mg/kg
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter
<= 10 µm] - CAS: 13463-67-7

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat > 6.8 mg/l - Duration: 4h

b) skin corrosion/irritation:

Test: Skin Irritant No

c) serious eye damage/irritation:

Test: Eye Irritant No

e) germ cell mutagenicity:

Test: Mutagenesis No

Silicon dioxide, chemically prepared [CAS-No. 112945-52-5 resp. 7631-86-9] - CAS: 7631-86-9

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat > 0.139 mg/l - Duration: 4h

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat > 23.5 mg/l

ethyl acetate - CAS: 141-78-6

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5620 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 20000 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat > 6000 ppm - Duration: 8h

N,N-1,6-Hexanediylbis[12-hydroxyoctadecanamide]

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg - Notes: OECD 423
Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg - Notes: OECD 402

ethylbenzene - CAS: 100-41-4

a) acute toxicity:

Test: LD50 - Route: Skin - Species: Rabbit = 17800 mg/kg
Test: LD50 - Route: Oral - Species: Rat = 3500 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat = 4000 mg/l - Duration: 4h

ethanol; ethyl alcohol - CAS: 64-17-5

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 10470 mg/kg - Duration: 24H
Test: LC50 - Route: Inhalation Vapour - Species: Rat = 124.7 mg/l - Duration: 4h
Test: LD50 - Route: Skin - Species: Rabbit = 17100 mg/kg

g) reproductive toxicity:

Test: NOAEL - Species: Rat = 20700 mg/kg - Duration: 24H

trans-1,3,3,3-Tetrafluoroprop-1-ene - CAS: 1645-83-6

a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Rat > 207000 ppm - Duration: 4h
Test: Skin Irritant - Route: Skin - Species: Rabbit Negative - Notes: METHOD: OECD 404

e) germ cell mutagenicity:

Test: Genotoxicity Negative
Test: Genotoxicity Negative
Test: Genotoxicity - Route: Inhalation - Species: Mouse Negative

i) STOT-repeated exposure:

Test: NOAEL - Route: Inhalation - Species: Rat = 5000 ppm - Notes: 13 weeks

2-Pentanone oxime - CAS: 623-40-5

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 1133 mg/kg - Source: OECD TG 425

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Test: LC50 - Route: Inhalation - Species: Rat > 295 ppm - Duration: 4h - Source: OECD TG 403

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rabbit Negative - Source: OCSE Nr.439

c) serious eye damage/irritation:

Test: Eye Irritant - Species: Rabbit Positive - Source: OECD TG 405

e) germ cell mutagenicity:

Negative

g) reproductive toxicity:

Test: NOAEL - Route: Oral - Species: Rat = 150 mg/kg bw

Condensation products of dimerised fatty acids, C18-unsaturated, with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine - CAS: 162627-17-0

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 10000 mg/kg

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 4016 mg/kg

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg - Duration: 24H

Test: LC50 - Route: Inhalation Vapour - Species: Rat > 6000 ppm - Duration: 6H

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration \geq 0.1%

SECTION 12: Ecological information

12.1. Toxicity

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

WGK: 1

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Not classified for environmental hazards

Based on available data, the classification criteria are not met

acetone; propan-2-one; propanone - CAS: 67-64-1

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Algae = 530 mg/l - Notes: 8 d

Endpoint: LC50 - Species: Fish = 8120 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 8800 mg/l - Duration h: 48

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia = 2212 mg/l - Notes: 28 d

propane - CAS: 74-98-6

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 49.47 mg/l

Endpoint: EC50 - Species: Daphnia = 27.14 mg/l

Endpoint: EC50 - Species: Algae = 11.89 mg/l

n-butyl acetate - CAS: 123-86-4

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia = 44 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae = 675 mg/l - Duration h: 72

Endpoint: LC50 - Species: Fish = 18 mg/l - Duration h: 96 - Notes: OECD 203

butane - CAS: 106-97-8

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 24.11 mg/l - Duration h: 96

Endpoint: LC50 - Species: Daphnia = 14.22 mg/l - Duration h: 48

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia = 1550 mg/l - Duration h: 48

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- Endpoint: EC50 - Species: Algae = 91840 mg/l - Duration h: 72
Endpoint: LC50 - Species: Fish = 1474 mg/l - Duration h: 96
- b) Aquatic chronic toxicity:
Endpoint: NOEC - Species: Fish > 100 mg/l - Notes: 21 d
Endpoint: NOEC - Species: Daphnia = 100 mg/l - Notes: 21 d
- isobutane - CAS: 75-28-5
- a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish = 24.11-147.54 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia = 14.22-69.43 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae = 7.71-19.37 mg/l
- xylene (mixture of isomers) - CAS: 1330-20-7
- a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish = 2.6 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia = 1 mg/l - Duration h: 24
Endpoint: EC50 - Species: Algae = 1.3 mg/l - Duration h: 72
- butan-1-ol; n-butanol - CAS: 71-36-3
- a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish = 1376 mg/l - Duration h: 96
Endpoint: EC50 - Species: Algae = 225 mg/l - Duration h: 96 - Notes: OECD TG 201
Endpoint: EC50 - Species: Daphnia = 1328 mg/l - Duration h: 48 - Notes: OECDTG 202
Endpoint: NOEC - Species: Daphnia = 4.1 mg/l - Notes: 21 d OCSE 211
- c) Bacteria toxicity:
Endpoint: EC50 = 4390 mg/l - Notes: 17 d
- isobutyl acetate - CAS: 110-19-0
- a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish = 17 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia = 25 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae = 370 mg/l - Duration h: 72
- propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0
- a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish = 9640 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia = 10000 mg/l - Duration h: 24
- c) Bacteria toxicity:
Endpoint: EC50 = 1050 mg/l
- e) Plant toxicity:
Endpoint: EC50 - Species: Algae > 1800 mg/l - Duration h: 168
- titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm] - CAS: 13463-67-7
- a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish > 1000 mg/l - Duration h: 96 - Notes: EPA-540/9-85-006
FRESHWATER FISH
Endpoint: LC50 - Species: Fish > 100 mg/l - Duration h: 96 - Notes: OECD 203
FRESHWATER FISH
Endpoint: LC50 - Species: Fish > 10000 mg/l - Duration h: 96 - Notes: OECD 203
SEAWATER FISH
Endpoint: LC50 - Species: Daphnia > 100 mg/l - Duration h: 48 - Notes: OECD 202
FRESHWATER
Endpoint: LC50 - Species: Daphnia > 10000 mg/l - Duration h: 48 - Notes: ISO 14669;
ISO 5667-16 SEAWATER
Endpoint: EC50 - Species: Algae = 16 mg/l - Duration h: 72 - Notes: EPA-600-9/78-018
FRESHWATER
Endpoint: EC50 - Species: Algae > 10000 mg/l - Duration h: 72 - Notes: ISO 10253
SEAWATER
- Silicon dioxide, chemically prepared [CAS-No. 112945-52-5 resp. 7631-86-9] - CAS: 7631-86-9
- a) Aquatic acute toxicity:
Endpoint: EC50 - Species: Daphnia > 1000 mg/l - Duration h: 24
Endpoint: LC50 - Species: Fish = 10000 mg/l - Duration h: 96
Endpoint: EC50 - Species: Algae > 10000 mg/l - Duration h: 72

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2-methoxy-1-methylethyl acetate - CAS: 108-65-6

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 134 mg/l - Duration h: 96

Endpoint: EC50 - Species: Algae > 1000 mg/l - Duration h: 72

Endpoint: EC50 - Species: Daphnia > 500 mg/l - Duration h: 48

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia > 100 mg/l - Notes: 21 d

ethyl acetate - CAS: 141-78-6

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 230 mg/l - Duration h: 96

Endpoint: LC50 - Species: Algae = 5600 mg/l - Duration h: 48

Endpoint: EC50 - Species: Daphnia = 165 mg/l - Duration h: 48

c) Bacteria toxicity:

Endpoint: EC50 = 5870 mg/l - Duration h: 0.25

N,N-1,6-Hexanedilbis[12-hydroxyoctadecanamide]

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 100 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia > 100 mg/l - Duration h: 48

ethylbenzene - CAS: 100-41-4

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia = 75 mg/l - Duration h: 48 - Notes: Daphnia magna

Endpoint: LC50 - Species: Fish = 48.5 mg/l - Duration h: 96 - Notes: Phimephales

ethanol; ethyl alcohol - CAS: 64-17-5

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 11200 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia > 5012 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae > 4432 mg/l - Notes: 7 d

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia = 9.6 mg/l - Notes: 9 d

trans-1,3,3,3-Tetrafluoroprop-1-ene - CAS: 1645-83-6

a) Aquatic acute toxicity:

Endpoint: NOEC - Species: Fish > 117 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia > 160 mg/l - Duration h: 48

Endpoint: NOEC - Species: Algae > 170 mg/l - Duration h: 72

2-Pentanone oxime - CAS: 623-40-5

a) Aquatic acute toxicity:

Endpoint: NOEC - Species: Fish = 100 mg/l - Duration h: 96

Endpoint: EC50 - Species: Algae = 88 mg/l - Duration h: 72

Endpoint: NOEC - Species: Daphnia > 100 mg/l - Duration h: 48

Condensation products of dimerised fatty acids, C18-unsaturated, with

N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine - CAS: 162627-17-0

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 150 mg/l - Duration h: 48

Endpoint: EC50 - Species: Daphnia > 100 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae > 100 mg/l - Duration h: 48

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 6812 mg/l - Duration h: 96

Endpoint: EC50 - Species: Algae > 1000 mg/l - Duration h: 168

Endpoint: EC50 - Species: Daphnia = 23300 mg/l - Duration h: 48

12.2. Persistence and degradability

None

acetone; propan-2-one; propanone - CAS: 67-64-1

Biodegradability: Readily biodegradable

propane - CAS: 74-98-6

Biodegradability: Readily biodegradable

n-butyl acetate - CAS: 123-86-4

Biodegradability: Readily biodegradable

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butane - CAS: 106-97-8

Biodegradability: Readily biodegradable

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

Biodegradability: Readily biodegradable

isobutane - CAS: 75-28-5

Biodegradability: Readily biodegradable

butan-1-ol; n-butanol - CAS: 71-36-3

Biodegradability: Readily biodegradable - %: 92

isobutyl acetate - CAS: 110-19-0

Biodegradability: Readily biodegradable

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

Biodegradability: Readily biodegradable

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm] - CAS: 13463-67-7

Biodegradability: Not persistent and Biodegradable

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

Biodegradability: Readily biodegradable

ethyl acetate - CAS: 141-78-6

Biodegradability: Readily biodegradable

ethanol; ethyl alcohol - CAS: 64-17-5

Biodegradability: Readily biodegradable

trans-1,3,3,3-Tetrafluoroprop-1-ene - CAS: 1645-83-6

Biodegradability: Non-readily biodegradable

2-Pentanone oxime - CAS: 623-40-5

Biodegradability: Non-readily biodegradable

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

Biodegradability: Readily biodegradable

12.3. Bioaccumulative potential

acetone; propan-2-one; propanone - CAS: 67-64-1

Bioaccumulation: Not bioaccumulative - Test: BCF - Bioconcentration factor 3

Bioaccumulation: Not bioaccumulative - Test: Kow - Partition coefficient 0.24

propane - CAS: 74-98-6

Bioaccumulation: Bioaccumulative - Test: Kow - Partition coefficient 2.35

n-butyl acetate - CAS: 123-86-4

Test: BCF - Bioconcentration factor 15.3

Test: Kow - Partition coefficient 2.3 - Notes: n-octanol/water

butane - CAS: 106-97-8

Bioaccumulation: Bioaccumulative - Test: Kow - Partition coefficient 2.89

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

Test: Kow - Partition coefficient 0.81 - Notes: 1-OCTANOL/WATER

isobutane - CAS: 75-28-5

Test: Kow - Partition coefficient 2.88

isobutyl acetate - CAS: 110-19-0

Test: Kow - Partition coefficient 2.3

Test: BCF - Bioconcentration factor 15.3

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

Bioaccumulation: Not bioaccumulative - Test: Kow - Partition coefficient 0.05 - Notes: OECD 107

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 µm] - CAS: 13463-67-7

Bioaccumulation: Not bioaccumulative

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

Bioaccumulation: Not bioaccumulative

ethyl acetate - CAS: 141-78-6

Test: BCF - Bioconcentration factor 30

Test: Kow - Partition coefficient 0.68

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

Bioaccumulation: Not bioaccumulative - Test: Kow - Partition coefficient -0.49

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- 12.4. Mobility in soil
1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2
Mobility in soil: Mobile
- 12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None
- 12.6. Endocrine disrupting properties
No endocrine disruptor substances present in concentration $\geq 0.1\%$
- 12.7. 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.

Additional disposal information:
WASTE CODE = 160504

SECTION 14: Transport information

- 14.1. UN number or ID number
ADR-UN number: 1950
IATA-Un number: 1950
IMDG-Un number: 1950
- 14.2. UN proper shipping name
ADR-Shipping Name: AEROSOLS
IATA-Shipping Name: AEROSOLS, flammable
IMDG-Shipping Name: AEROSOLS
- 14.3. Transport hazard class(es)
ADR-Class: 2 - 5F
ADR-Label: 2.1
IATA-Class: 2.1
IATA-Label: 2.1
IMDG-Class: 2.1
- 14.4. Packing group
ADR-Packing Group: -
IATA-Packing group: -
IMDG-Packing group: -
- 14.5. Environmental hazards
Marine pollutant: No
IMDG-EMS: F-D S-U
- 14.6. Special precautions for user
ADR-Transport category (Tunnel restriction code): D
ADR-Limited Quantity (LQ): 1 L
IATA-Passenger Aircraft: Forbidden
IATA-Cargo Aircraft: 203
IMDG-Shipping Name: AEROSOLS
- 14.7. Maritime transport in bulk according to IMO instruments
N.A.

SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

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Regulation (EU) n. 2020/878
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regulation (EU) n. 2021/849 (ATP 17 CLP)
Regulation (EU) n. 2022/692 (ATP 18 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restriction 40

Restrictions related to the substances contained:

Restriction 70

Restriction 75

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

Product belongs to category: P3a

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

Substances for which a Chemical Safety Assessment has been carried out:

n-butyl acetate

2-butoxyethanol; ethylene glycol monobutyl ether

xylene (mixture of isomers)

butan-1-ol; n-butanol

propan-2-ol; isopropyl alcohol; isopropanol

2-methoxy-1-methylethyl acetate

ethyl acetate

1-methoxy-2-propanol; monopropylene glycol methyl ether

15.3. VOC

Volatile organic compounds - VOCs = 675 g/l

Volatile organic compounds - VOCs = 90 %

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

SECTION 16: Other information

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Full text of phrases referred to in Section 3:

- H225 Highly flammable liquid and vapour.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- EUH066 Repeated exposure may cause skin dryness or cracking.
- H220 Extremely flammable gas.
- H280 Contains gas under pressure; may explode if heated.
- H226 Flammable liquid and vapour.
- H331 Toxic if inhaled.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H304 May be fatal if swallowed and enters airways.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H312 Harmful in contact with skin.
- H332 Harmful if inhaled.
- H412 Harmful to aquatic life with long lasting effects.
- H318 Causes serious eye damage.
- H351 Suspected of causing cancer if inhaled.
- H317 May cause an allergic skin reaction.
- H413 May cause long lasting harmful effects to aquatic life.
- H373 May cause damage to organs (hearing organs) through prolonged or repeated exposure.

Hazard class and hazard category	Code	Description
Flam. Gas 1A	2.2/1A	Flammable gas, Category 1A
Aerosols 1	2.3/1	Aerosol, Category 1
Press. Gas	2.5	Gases under pressure
Press Gas (Comp.)	2.5/C	Gases under pressure (Compressed gas)
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Acute Tox. 3	3.1/3/Inhal	Acute toxicity (inhalation), Category 3
Acute Tox. 4	3.1/4/Dermal	Acute toxicity (dermal), Category 4
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Skin Sens. 1	3.4.2/1	Skin Sensitisation, Category 1
Skin Sens. 1A	3.4.2/1A	Skin Sensitisation, Category 1A
Carc. 2	3.6/2	Carcinogenicity, Category 2

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STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
STOT RE 2	3.9/2	Specific target organ toxicity - repeated exposure, Category 2
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3
Aquatic Chronic 4	4.1/C4	Chronic (long term) aquatic hazard, category 4

Paragraphs modified from the previous revision:

SECTION 3: Composition/information on ingredients
SECTION 8: Exposure controls/personal protection
SECTION 11: Toxicological information
SECTION 12: Ecological information
SECTION 14: Transport information
SECTION 15: Regulatory information
SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Aerosols 1, H222, H229	On basis of test data
Eye Irrit. 2, H319	Calculation method
STOT SE 3, H336	Calculation method

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

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.
ATE: Acute Toxicity Estimate
ATEmix: Acute toxicity Estimate (Mixtures)
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

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	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.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.