



SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758

Isopentanoic acid
11560

Version / Revision
Supersedes Version

2.01
2.00***

Revision Date
Issuing date

27-Jan-2023
27-Jan-2023

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

1.1. Product identifier

Identification of the
substance/preparation

Isopentanoic acid

CAS-No
EC No.

-
-

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

Identified uses
Uses advised against

Intermediate
None

1.3. Details of the supplier of the safety data sheet

Company/Undertaking
Identification

OQ Chemicals GmbH
Rheinpromenade 4A
D-40789 Monheim
Germany

Product Information

Product Stewardship
FAX: +49 (0)208 693 2053
email: sc.psq@oq.com

1.4. Emergency telephone number

Emergency telephone number +44 (0) 1235 239 670 (UK)
available 24/7

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This mixture is classified based on Directive 1272/2008/EC and its amendments (CLP Regulation)

Skin corrosion/irritation Category 1B, H314
Serious eye damage/eye irritation Category 1, H318
Environmental hazard Aquatic Chronic 3; H412

Additional information

For full text of Hazard- and EU Hazard-statements see SECTION 16.

2.2. Label elements

Labelling according to Regulation 1272/2008/EC and its amendments (CLP Regulation).

Hazard pictograms



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Signal word

Danger

Hazard statements

H314: Causes severe skin burns and eye damage.
H412: Harmful to aquatic life with long lasting effects.

Precautionary statements

P280: Wear protective gloves/protective clothing/eye protection/face protection.
P273: Avoid release to the environment.
P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER/doctor.
P405: Store locked up.
P501: Dispose of contents/container in accordance with local regulation.

contains

n-Valeric acid (CAS 109-52-4), 2-Methylbutyric acid (CAS 116-53-0)

2.3. Other hazards

Components of the product may be absorbed into the body by inhalation and ingestion
Vapour/air-mixtures are explosive at intense warming

PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT), nor very persistent nor very bioaccumulating (vPvB)

Endocrine disrupting assessments

The substances contained in this mixture are not listed on the candidate list according to Art. 59(1), REACH. The substances contained in this mixture were not assessed as having endocrine disrupting properties according to regulation 2017/2100/EU or 2018/605/EU.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

| Component | CAS-No | 1272/2008/EC | Concentration (%) |
|----------------------|----------|----------------------------------------------------------------------------------------------------------------|-------------------|
| Valeric acid | 109-52-4 | Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412 | < 70 |
| 2-Methylbutyric acid | 116-53-0 | Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 ATE = 1750 mg/kg (oral) | 34 - 37 |



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| | | | |
|--|--|---------------------------|--|
| | | ATE = 1367 mg/kg (dermal) | |
|--|--|---------------------------|--|

For full text of Hazard- and EU Hazard-statements see SECTION 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Keep at rest. Aerate with fresh air. When symptoms persist or in all cases of doubt seek medical advice.

Skin

Wash off immediately with soap and plenty of water. When symptoms persist or in all cases of doubt seek medical advice.

Eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

Ingestion

Call a physician immediately. Do not induce vomiting without medical advice.

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

Main symptoms

central nervous system depression, unconsciousness, shortness of breath, vomiting, cough, dizziness, nausea, gastrointestinal discomfort.

Special hazard

Lung irritation, Lung oedema, Dermatitis.

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

General advice

Remove contaminated, soaked clothing immediately and dispose of safely. First aider needs to protect himself.

Treat symptomatically. If ingested, flush stomach and compensate acidosis.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

foam, dry chemical, carbon dioxide (CO₂), water spray

Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Under conditions giving incomplete combustion, hazardous gases produced may consist of:

carbon monoxide (CO)

carbon dioxide (CO₂)

Combustion gases of organic materials must in principle be graded as inhalation poisons

Vapours are heavier than air and may spread along floors

Vapour/air-mixtures are explosive at intense warming



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5.3. Advice for firefighters

Special protective equipment for firefighters

Fire fighter protection should include a self-contained breathing apparatus (NIOSH-approved or EN 133) and full fire-fighting turn out gear.

Precautions for firefighting

Cool containers / tanks with water spray. Keep people away from and upwind of fire. Dike and collect water used to fight fire. Water run-off and vapor cloud may be corrosive. Water run-off can cause environmental damage.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: For personal protective equipment see section 8. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep people away from and upwind of spill/leak. Ensure adequate ventilation, especially in confined areas. Keep away from heat and sources of ignition.

For emergency responders: Personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage. Do not discharge product into the aquatic environment without pretreatment (biological treatment plant). Water runoff can cause environmental damage.

6.3. Methods and material for containment and cleaning up

Methods for containment

Stop the flow of material, if possible without risk. Dike spilled material, where this is possible.

Methods for cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. If liquid has been spilled in large quantities clean up promptly by scoop or vacuum. Dispose of in accordance with local regulations. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).

6.4. Reference to other sections

For personal protective equipment see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Provide sufficient air exchange and/or exhaust in work rooms.

Hygiene measures

When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

Advice on the protection of the environment

See Section 8: Environmental exposure controls.

Incompatible products



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bases
amines
strong oxidizing agents

7.2. Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). In case of fire, emergency cooling with water spray should be available. Ground and bond containers when transferring material. Vapour/air-mixtures are explosive at intense warming.

Technical measures/Storage conditions

Keep containers tightly closed in a cool, well-ventilated place. Handle and open container with care.

Suitable material

stainless steel

Unsuitable material

copper, nickel

Temperature class

T2

7.3. Specific end use(s)

Intermediate

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Exposure limits European Union

No exposure limits established

Exposure limits UK

No exposure limits established.

DNEL & PNEC

Valeric acid, CAS: 109-52-4

Workers

No data available

General population

No data available

Environment

No data available

2-Methylbutyric acid, CAS: 116-53-0

Workers

No data available



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General population

No data available

Environment

No data available

8.2. Exposure controls

Special adaptations (REACH)

Not applicable.

Appropriate Engineering controls

General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Explosion-proof equipment (for example fans, switches, and grounded ducts) should be used in mechanical ventilation systems.

Personal protective equipment

General industrial hygiene practice

Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Ensure that eyewash stations and safety showers are close to the workstation location.

Hygiene measures

When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

Eye protection

Tightly fitting safety goggles. In addition to goggles, wear a face shield if there is a reasonable chance for splash to the face.

Equipment should conform to EN 166

Hand protection

Wear protective gloves. Recommendations are listed below. Other protective material may be used, depending on the situation, if adequate degradation and permeation data is available. If other chemicals are used in conjunction with this chemical, material selection should be based on protection for all chemicals present.

| | |
|---------------------------|------------------------------|
| Suitable material | nitrile rubber |
| Evaluation | according to EN 374: level 6 |
| Glove thickness | approx 0,55 mm |
| Break through time | > 480 min |

| | |
|--------------------------|-----------------------------------------------|
| Suitable material | polyvinylchloride |
| Evaluation | Information derived from practical experience |
| Glove thickness | approx 0,8 mm |

Skin and body protection

Impervious clothing. Wear face-shield and protective suit for abnormal processing problems.

Respiratory protection

Respirator with A filter. Full mask with above mentioned filter according to producers using requirements or self-contained breathing apparatus. Equipment should conform to EN 136 or EN 140 and EN 143.

Environmental exposure controls

If possible use in closed systems. If leakage can not be prevented, the substance needs to be suck off at the emersion point, if possible without danger. If recycling is not practicable, dispose of in compliance with local

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regulations. Inform the responsible authorities in case of leakage into the atmosphere, or of entry into waterways, soil or drains.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

| | | | | | |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------|-----------|------|----------------|
| Physical state | liquid | | | | |
| Colour | colourless | | | | |
| Odour | unpleasant | | | | |
| Odour threshold | No data available | | | | |
| Melting point/freezing point | -90 - -35 °C (Pour point) | | | | |
| Method | DIN ISO 3016 | | | | |
| Boiling point or initial boiling point and boiling range | 177 - 186 °C @ 1013 hPa | | | | |
| Method | OECD 103 | | | | |
| Flammability | Even if not classified as flammable, the product is capable of catching fire or being set on fire.*** | | | | |
| Lower explosion limit | 1,6 Vol % | | | | |
| Upper explosion limit | 7,6 Vol % | | | | |
| Flash point | 77 - 89 °C | | | | |
| Method | EN 22719, ISO 2719 | | | | |
| Autoignition temperature | 410 - 435 °C @ 1003 - 1007 hPa | | | | |
| Method | DIN 51794 | | | | |
| Decomposition temperature | No data available | | | | |
| pH | 3,1 - 3,3 (10 g/l in water @ 25 °C (77 °F)) | | | | |
| Kinematic Viscosity | 2,234 - 2,322 mm ² /s @ 20 °C | | | | |
| Method | DIN 51562 | | | | |
| Solubility | 37,5 - 45 g/l @ 20 °C, in water, OECD 105 | | | | |
| Partition coefficient n-octanol/water (log value) | 1,8 @ 25 °C (77 °F) measured OECD 117 | | | | |
| Vapour pressure | | | | | |
| Values [hPa] | Values [kPa] | Values [atm] | @ °C | @ °F | Method |
| 0,2 - 1,68 | 0,02 - 1,168 | < 0,001 - 0,002 | 20 | 68 | DIN EN 13016-2 |
| Density and/or relative density | | | | | |
| Values | @ °C | @ °F | Method | | |
| 0,9360 - 0,94 | 20 | 68 | DIN 51757 | | |
| Relative vapour density | ~ 3,5 (Air = 1) @ 20 °C (68 °F) | | | | |
| Particle characteristics | not applicable | | | | |

9.2. Other information

| | |
|------------------------------|---------------------------------------------------------------------------------------------------------------|
| Explosive properties | Does not apply, substance is not explosive. There are no chemical groups associated with explosive properties |
| Oxidizing properties | Does not apply, substance is not oxidising. There are no chemical groups associated with oxidizing properties |
| Molecular weight | 102,13 |
| Molecular formula | C ₅ H ₁₀ O ₂ |
| Dissociation constant | pKa 4,8 @ 20 - 22,5 °C (68 - 72,5 °F) OECD 112 |
| Refractive index | 1,405 - 1,408 @ 20 °C |
| Surface tension | 51,6 - 64,2 mN/m (1 g/l @ 20°C (68°F)), OECD 115 |
| Evaporation rate | No data available |

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The reactivity of the product corresponds to the typical reactivity shown by the substance group as described in any text book on organic chemistry.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Avoid contact with heat, sparks, open flame and static discharge. Avoid any source of ignition.

10.5. Incompatible materials

bases, amines, strong oxidizing agents.

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Likely routes of exposure Ingestion, Inhalation, Eye contact, Skin contact

Acute toxicity**Valeric acid (109-52-4)**

| Routes of Exposure | Endpoint | Values | Species | Method |
|--------------------|----------|---------------------|------------------|----------|
| Oral | LD50 | 4600 mg/kg | rat, male/female | OECD 401 |
| Dermal | LD50 | > 2000 mg/kg (24 h) | rat, male/female | OECD 402 |
| Inhalative | LC0 | 11,63 mg/l (7 h) | rat, male/female | |

2-Methylbutyric acid (116-53-0)

| Routes of Exposure | Endpoint | Values | Species | Method |
|--------------------|----------|------------------------------|------------------|----------|
| Oral | LD50 | 1750 mg/kg | rat, male/female | OECD 401 |
| Dermal | LD50 | 2228 mg/kg | rabbit male | OECD 402 |
| Dermal | LD50 | 1367 mg/kg | rabbit female | OECD 402 |
| Inhalative | LC0 | 8375 mg/m ³ (6 h) | rat, male/female | OECD 403 |

Valeric acid, CAS: 109-52-4**Assessment**

Based on available data, the classification criteria are not met for:

Acute oral toxicity

Acute dermal toxicity

STOT SE

An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum

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achievable concentration

2-Methylbutyric acid, CAS: 116-53-0**Assessment**

The available data lead to the classification given in section 2

An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration

Irritation and corrosion**Valeric acid (109-52-4)**

| Target Organ Effects | Species | Result | Method | |
|----------------------|---------|-----------|--------|-------|
| Skin | rabbit | corrosive | | 3 min |
| Eyes | rabbit | corrosive | | |

2-Methylbutyric acid (116-53-0)

| Target Organ Effects | Species | Result | Method | |
|----------------------|---------|-----------|----------|-------|
| Skin | rabbit | corrosive | OECD 404 | 3 min |

Valeric acid, CAS: 109-52-4**Assessment**

The available data lead to the classification given in section 2

For respiratory irritation, no data are available

2-Methylbutyric acid, CAS: 116-53-0**Assessment**

The available data lead to the classification given in section 2

Available skin corrosion data suffice for classification of eye corrosion without further testing

For respiratory irritation, no data are available

Valeric acid, CAS: 109-52-4**Assessment**

Skin sensitization was not tested due to the corrosive properties of the substance

For skin sensitization, no data are available

For respiratory sensitization, no data are available

2-Methylbutyric acid, CAS: 116-53-0**Assessment**

Skin sensitization was not tested due to the corrosive properties of the substance

For respiratory sensitization, no data are available

Subacute, subchronic and prolonged toxicity**Valeric acid (109-52-4)**

| Type | Dose | Species | Method | |
|-------------------|------|---------|--------|--|
| no data available | | | | |

Valeric acid, CAS: 109-52-4**Assessment**

Due to lack of data, a classification is not possible for:

STOT RE

2-Methylbutyric acid, CAS: 116-53-0**Assessment**

Based on available data, the classification criteria are not met for:

STOT RE

Carcinogenicity, Mutagenicity, Reproductive toxicity**Valeric acid (109-52-4)**

| Type | Dose | Species | Evaluation | Method | |
|--------------|------|------------|------------|----------|----------------|
| Mutagenicity | | Salmonella | negative | OECD 471 | In vitro study |

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| | | | | | |
|------------------------|-------------------|-----------------------------------|--------------------------------------|------------------------------------|-----------------------------------|
| | | typhimurium | | (Ames) | |
| Mutagenicity | | CHO (Chinese Hamster Ovary) cells | positive (with metabolic activation) | OECD 473 (Chromosomal Aberration) | In vitro study |
| Mutagenicity | | CHO (Chinese Hamster Ovary) cells | positive | OECD 479 (SCE) | In vitro study |
| Mutagenicity | | CHO (Chinese Hamster Ovary) cells | negative | OECD 476 (Mammalian Gene Mutation) | In vitro study |
| Mutagenicity | | mouse | negative | OECD 474 | in vivo |
| Developmental Toxicity | NOEL 50 mg/kg/d | rat | | Oral | Developmental toxicity |
| Developmental Toxicity | NOAEL 750 mg/kg/d | rat | | OECD 414, Oral | Maternal toxicity, Embryotoxicity |

2-Methylbutyric acid (116-53-0)

| Type | Dose | Species | Evaluation | Method | |
|--------------|------|--------------------------------------------|------------|-----------------|--|
| Mutagenicity | | Salmonella typhimurium Escherichia coli | negative | OECD 471 (Ames) | |

Valeric acid, CAS: 109-52-4**CMR Classification**

The available data on CMR properties are summarized in the table above. They do not indicate a classification into categories 1A or 1B

Evaluation

No developmental effects in the absence of maternal toxicity
Did not show mutagenic effects in animal experiments

2-Methylbutyric acid, CAS: 116-53-0**CMR Classification**

The available data on CMR properties are summarized in the table above. They do not indicate a classification into categories 1A or 1B

Evaluation

In vitro tests did not show mutagenic effects

Valeric acid, CAS: 109-52-4**Main symptoms**

central nervous system depression, unconsciousness, shortness of breath, vomiting.

Target Organ Systemic Toxicant - Single exposure

Based on available data, the classification criteria are not met for:

STOT SE

Target Organ Systemic Toxicant - Repeated exposure

Due to lack of data, a classification is not possible for:

STOT RE

Aspiration toxicity

no data available

2-Methylbutyric acid, CAS: 116-53-0**Main symptoms**

cough, dizziness, nausea, shortness of breath, unconsciousness, gastrointestinal discomfort.

Target Organ Systemic Toxicant - Single exposure

Based on available data, the classification criteria are not met for:

STOT SE

Target Organ Systemic Toxicant - Repeated exposure

Based on available data, the classification criteria are not met for:

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STOT RE

Aspiration toxicity

no data available

11.2. Information on other hazards**Endocrine disrupting properties**

The substances contained in this mixture have not been identified as having endocrine disrupting properties in accordance with section 2.3.

Valeric acid, CAS: 109-52-4**Other adverse effects**

Components of the product may be absorbed into the body by inhalation and ingestion.

Note

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information**12.1. Toxicity**

| Acute aquatic toxicity | | | |
|--------------------------------------|---------------|-------------------------------|----------------------|
| Valeric acid (109-52-4) | | | |
| Species | Exposure time | Dose | Method |
| Daphnia magna (Water flea) | 48h | EC50: 88,1 mg/l | OECD 202 read across |
| Pseudokirchneriella subcapitata | 72h | EC50: 29,3 mg/l (Growth rate) | OECD 201 |
| Pimephales promelas (fathead minnow) | 96h | LC50: 39 mg/l | OECD 203 |

| 2-Methylbutyric acid (116-53-0) | | | |
|----------------------------------------|---------------|-------------------------------|-------------------------------|
| Species | Exposure time | Dose | Method |
| Danio rerio (Zebra fish) | 96h | LC50: > 1000 mg/l | OECD 203 |
| Bacteria / Sewage | 24h | TTC: 1250 mg/l | ETAD Fermentation tube method |
| Daphnia magna (Water flea) | 48h | LC50: 88,1 mg/l | OECD 202 read across |
| Pseudokirchneriella subcapitata | 72h | EC50: 73,2 mg/l (Growth rate) | OECD 201 read across |

| Long term toxicity | | | | |
|--------------------------------|---------------------------------|-----------------------|----------|--|
| Valeric acid (109-52-4) | | | | |
| Type | Species | Dose | Method | |
| Aquatic toxicity | Pseudokirchneriella subcapitata | NOAEC: 12,6 mg/l (3d) | OECD 201 | |

| 2-Methylbutyric acid (116-53-0) | | | | |
|----------------------------------------|---------------------------------|----------------------------------------|----------------------|--|
| Type | Species | Dose | Method | |
| Aquatic toxicity | Pseudokirchneriella subcapitata | NOEC: 54,4 mg/l (3d) Growth inhibition | OECD 201 read across | |

12.2. Persistence and degradability**Valeric acid, CAS: 109-52-4****Biodegradation**

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72 % (10 d), activated sludge, non-adapted, aerobic.

2-Methylbutyric acid, CAS: 116-53-0**Biodegradation**

67,9 % (10 d), Sewage, domestic, non-adapted, Readily biodegradable, OECD 301 D.

| Abiotic Degradation | | |
|--------------------------------|-------------------|--------|
| Valeric acid (109-52-4) | | |
| Type | Result | Method |
| Hydrolysis | not expected | |
| Photolysis | No data available | |

| 2-Methylbutyric acid (116-53-0) | | |
|----------------------------------------|-------------------|--------|
| Type | Result | Method |
| Hydrolysis | No data available | |
| Photolysis | No data available | |

12.3. Bioaccumulative potential

| Valeric acid (109-52-4) | | |
|--------------------------------|---------------------|--------------------|
| Type | Result | Method |
| log Pow | 1,8 @ 25 °C (77 °F) | measured, OECD 117 |
| BCF | No data available | |

| 2-Methylbutyric acid (116-53-0) | | |
|----------------------------------------|---------------------|--------------------|
| Type | Result | Method |
| log Pow | 1,8 @ 25 °C (77 °F) | measured, OECD 117 |
| BCF | No data available | |

12.4. Mobility in soil

| Valeric acid (109-52-4) | | |
|--------------------------------------------|---------------------------------|----------|
| Type | Result | Method |
| Surface tension | 51,6 mN/m (1 g/l @ 20°C (68°F)) | OECD 115 |
| Adsorption/Desorption | no data available | |
| Distribution to environmental compartments | no data available | |

| 2-Methylbutyric acid (116-53-0) | | |
|--------------------------------------------|---------------------------------|----------|
| Type | Result | Method |
| Surface tension | 64,2 mN/m (1 g/l @ 20°C (68°F)) | OECD 115 |
| Adsorption/Desorption | no data available | |
| Distribution to environmental compartments | no data available | |

12.5. Results of PBT and vPvB assessment**Valeric acid, CAS: 109-52-4****PBT and vPvB assessment**

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT), nor very persistent nor very bioaccumulating (vPvB)

2-Methylbutyric acid, CAS: 116-53-0



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PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT), nor very persistent nor very bioaccumulating (vPvB)

12.6. Endocrine disrupting properties

The substances contained in this mixture have not been identified as having endocrine disrupting properties in accordance with section 2.3.

12.7. Other adverse effects

Valeric acid, CAS: 109-52-4

No data available

2-Methylbutyric acid, CAS: 116-53-0

No data available

Note

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product Information

Disposal required in compliance with all waste management related state and local regulations. The choice of the appropriate method of disposal depends on the product composition by the time of disposal as well as the local statutes and possibilities for disposal.

Hazardous waste according to European Waste Catalogue (EWC)

Uncleaned empty packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

SECTION 14: Transport information

ADR/RID

| | |
|-------------------------------------------|-----------------------------------------------------------------------------------|
| 14.1. UN number or ID number | UN 3265 |
| 14.2. UN proper shipping name | Corrosive liquid, acidic, organic, n.o.s. (2-Methylbutyric acid / n-Valeric acid) |
| 14.3. Transport hazard class(es) | 8 |
| 14.4. Packing group | II |
| 14.5. Environmental hazards | no |
| 14.6. Special precautions for user | |
| ADR Tunnel restriction code | (E) |
| Classification Code | C3 |
| Hazard Number | 80 |

ADN

ADN Container

| | |
|--------------------------------------|------------------------------------------------------------|
| 14.1. UN number or ID number | UN 3265 |
| 14.2. UN proper shipping name | Corrosive liquid, acidic, organic, n.o.s. (2-Methylbutyric |

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| | |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 14.3. Transport hazard class(es) | acid / n-Valeric acid) 8 |
| 14.4. Packing group | II |
| 14.5. Environmental hazards | no |
| 14.6. Special precautions for user | |
| Classification Code | C3 |
| Hazard Number | 80 |
| <u>ADN</u> | |
| | ADN Tanker |
| 14.1. UN number or ID number | UN 3265 |
| 14.2. UN proper shipping name | Corrosive liquid, acidic, organic, n.o.s. (2-Methylbutyric acid / n-Valeric acid) |
| 14.3. Transport hazard class(es) | 8 |
| Subsidiary Risk | N3 |
| 14.4. Packing group | II |
| 14.5. Environmental hazards | no |
| 14.6. Special precautions for user | |
| Classification Code | C3 |
| <u>ICAO-TI / IATA-DGR</u> | |
| 14.1. UN number or ID number | UN 3265 |
| 14.2. UN proper shipping name | Corrosive liquid, acidic, organic, n.o.s. (2-Methylbutyric acid / n-Valeric acid) |
| 14.3. Transport hazard class(es) | 8 |
| 14.4. Packing group | II |
| 14.5. Environmental hazards | no |
| 14.6. Special precautions for user | no data available |
| <u>IMDG</u> | |
| 14.1. UN number or ID number | UN 3265 |
| 14.2. UN proper shipping name | Corrosive liquid, acidic, organic, n.o.s. (2-Methylbutyric acid / n-Valeric acid) |
| 14.3. Transport hazard class(es) | 8 |
| 14.4. Packing group | II |
| 14.5. Environmental hazards | no |
| 14.6. Special precautions for user | |
| EmS | F-A, S-B |
| 14.7. Maritime transport in bulk according to IMO instruments | not applicable |

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Regulation 1272/2008, Annex VI**



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Valeric acid, CAS: 109-52-4

Classification

Skin Corr. 1B; H314
Aquatic Chronic 3; H412

Hazard pictograms

GHS05 Corrosion

Signal word

Danger

Hazard statements

H314, H412

DI 2012/18/EU (Seveso III)

Category

not subject

DI 1999/13/EC (VOC Guideline)

| Component | Status |
|---------------------------------------|---------------|
| Valeric acid CAS: 109-52-4 | regulated |
| 2-Methylbutyric acid CAS: 116-53-0 | regulated |

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019 No. 758

| Component | Status |
|---------------------------------------|------------------------------------------|
| Valeric acid CAS: 109-52-4 | The substance will not be pre-registered |
| 2-Methylbutyric acid CAS: 116-53-0 | The substance will not be pre-registered |

For details and further information please refer to the original regulation.

International Inventories

Valeric acid, CAS: 109-52-4

AICS (AU)
DSL (CA)
IECSC (CN)
EC-No. 2036772 (EU)
ENCS (2)-608 (JP)
ISHL (2)-608 (JP)
KECI KE-35263 (KR)
INSQ (MX)
PICCS (PH)
TSCA (US)
NZIoC (NZ)
TCSI (TW)

2-Methylbutyric acid, CAS: 116-53-0

AICS (AU)
DSL (CA)
IECSC (CN)
EC-No. 2041452 (EU)
ENCS (2)-608 (JP)
ISHL (2)-608 (JP)
KECI KE-23544 (KR)
INSQ (MX)
PICCS (PH)
TSCA (US)



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NZIoC (NZ)
TCSI (TW)

National regulatory information Great Britain

Releases to air (Pollution Inventory Substances)

not subject

Releases to water (Pollution Inventory Substances)

not subject

Releases to sewer (Pollution Inventory Substances)

not subject

For details and further information please refer to the original regulation

15.2. Chemical safety assessment

The Chemical Safety Report (CSR) is not required.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3

H302: Harmful if swallowed.

H312: Harmful in contact with skin.

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

H412: Harmful to aquatic life with long lasting effects.

Abbreviations

A table of terms and abbreviations can be found under the following link:

http://echa.europa.eu/documents/10162/13632/information_requirements_r20_en.pdf

Training advice

For effective first-aid, special training / education is needed.

Sources of key data used to compile the datasheet

Information contained in this safety data sheet is based on OQ owned data and public sources deemed valid or acceptable. The absence of data elements required by OSHA, ANSI or Annex II, Regulation 1907/2006/EC indicates, that no data meeting these requirements is available.

Further information for the safety data sheet

Changes against the previous version are marked by ***. Observe national and local legal requirements. For more information, other material safety data sheets or technical data sheets please consult the OQ homepage (www.chemicals.oq.com).

Disclaimer

For industrial use only. The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. OQ Chemicals makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards.

End of Safety Data Sheet



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