

Safety Data Sheet

#14740736 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
Urethane	51-79-6	NH ₂ COOC ₂ H ₅	10	11 Aug 2026

SECTION 1

Identification

Product name	Urethane
CAS number	51-79-6
Chemical formula	NH ₂ COOC ₂ H ₅
Molecular weight	89.09
SMILES	CCOC(=O)N
EC / EINECS number	<i>Not applicable</i>
Recommended use & restrictions	For research and development. Laboratory chemicals. Manufacture of substances. Not suitable for human or veterinary purposes.
Emergency telephone	0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

**DANGER**

CODE	HAZARD STATEMENT
H302	Harmful if swallowed
H350	May cause cancer

CODE	PRECAUTIONARY STATEMENT
P260	Do not breathe dust/fume/gas/mist/vapours/spray
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P308+313	IF exposed or concerned: Get medical advice/attention

Other hazards (e.g. PBT / vPvB, not classified)

This substance is not classified as PBT or vPvB according to current UK criteria. Does not contain components considered to have endocrine-disrupting properties

SECTION 3

Composition / information on ingredients

Purity / concentration	~100.0%
Impurities / stabilising additives	<i>Not applicable</i>

SECTION 4

First-aid measures

Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing. Get medical attention if symptoms persist.
Skin contact	Rinse with water.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse with water. Get medical attention if discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Get medical advice/attention if unwell. Do not induce vomiting unless directed by medical personnel.
Symptoms / effects & medical attention	Prolonged or repeated exposure may cause cancer (inhalation/ingestion/skin contact). Skin contact may cause dryness.

SECTION 5

Fire-fighting measures

Suitable extinguishing media	Alcohol-resistant foam, carbon dioxide, dry powder, or water fog.
Unsuitable extinguishing media	Do not use a water jet
Special hazards	Combustible Carbon monoxide (CO) Carbon dioxide (CO ₂) Nitrogen oxides (NO _x) Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours is possible in the event of fire.
Advice for firefighters	Avoid breathing fire gases; evacuate area; use positive-pressure self-contained breathing apparatus (SCBA) and protective clothing. Cool containers with water spray. Control run-off water to prevent pollution.

SECTION 6

Accidental release measures

Personal precautions & PPE	Wear protective clothing (gloves, clothing, eye/face protection). Do not touch spilled material. Avoid personal risk without training.
Environmental precautions	Avoid discharge into drains, watercourses, or ground. Prevent aquatic environment contamination.
Containment & clean-up methods	Wear protective clothing. Clear spills immediately; collect with shovel/broom and dispose safely. Flush contaminated area with water. Wash thoroughly after cleanup.

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

Storage temperature	Ambient
Precautions for safe handling	Observe good chemical hygiene practices. Keep away from food, drink and animal feeding stuffs. Wash contaminated skin thoroughly after handling. Do not eat, drink or smoke when using this product. Remove contaminated clothing and launder thoroughly before re-use.
Conditions for safe storage (incompatibilities)	Store away from incompatible materials. Keep locked up. Store in original container, tightly closed, in a cool, well-ventilated place. Keep containers upright and protected from damage.

SECTION 8

Exposure controls / personal protection

Occupational exposure limits (OEL / WEL) *Not applicable*

DNEC/PNEC data	Provide adequate general and local exhaust ventilation. Maintain and test ventilation systems regularly.
Eye / face protection	Safety glasses Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.
Skin / hand protection	Nitrile gloves Thickness: 0.11mm. Breakthrough time: 480mins.
Respiratory protection	Self-contained breathing apparatus Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.

SECTION 9

Physical & chemical properties

Density (g/mL)	0.986 g/mL DERIVED FROM: LITERATURE
Flash point	92 °C DERIVED FROM: LITERATURE
Acidity	Neutral DERIVED FROM: LITERATURE
Appearance / physical state	Crystalline solid DERIVED FROM: LITERATURE
Colour	Colourless DERIVED FROM: LITERATURE
Odour	Odourless DERIVED FROM: LITERATURE
Melting / freezing point	47 - 51°C DERIVED FROM: LITERATURE
Boiling point	182-184°C DERIVED FROM: LITERATURE
Solubility (water)	200 g/100 ml (20°C) DERIVED FROM: LITERATURE
pH	No data available. DERIVED FROM: LITERATURE
Vapour pressure	1.3 kPa at 78 °C DERIVED FROM: LITERATURE
Partition coefficient (log Pow)	log Pow-0.15 DERIVED FROM: LITERATURE
Auto-ignition / decomposition temp	Not applicable. DERIVED FROM: LITERATURE

SECTION 10

Stability & reactivity

Chemical stability / reactivity	Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical. The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed. Stable under the prescribed storage conditions
Conditions to avoid	Violent reactions possible: Strong oxidising agents Strong bases Camphor
Incompatible materials	Aldehydes. Strong oxidising agents. Strong acids. Strong bases (alkalis)
Hazardous decomposition products	Harmful gases or vapours (CO ₂ , CO, nitrogen oxides) may form during thermal decomposition or combustion. See section 5

SECTION 11

Toxicological information

Acute toxicity (LD50 / LC50)	Harmful if swallowed (H302). LD50 Oral - Rat - 1,809.0 mg/kg
Skin corrosion / irritation	<i>No data available</i>
Eye corrosion / irritation	<i>No data available</i>
Respiratory / skin sensitisation	<i>No data available</i>
Carcinogenicity	Carcinogenic (Category 1B) - Presumed to have carcinogenic potential for humans
Mutagenicity	<i>Not applicable</i>
Reproductive toxicity	<i>Not applicable</i>
STOT (single / repeated exposure)	<i>No data available</i>
Aspiration hazard	<i>No data available</i>
Endocrine disruptors	Does not contain components considered to have endocrine disrupting properties at levels of 0.1% or higher.

SECTION 12

Ecological information

Aquatic toxicity	Fish LC50 - Pimephales promelas (fathead minnow) - 5,240 mg/l - 96 h Remarks: (ECOTOX Database)
Persistence & degradability	<i>Not applicable</i>
Bioaccumulative potential	<i>Not applicable</i>
Mobility in soil	<i>Not applicable</i>
PBT / vPvB assessment	Not classified as PBT or vPvB under current UK criteria.

SECTION 13

Disposal considerations

Waste treatment / disposal methods	Dispose of in accordance with local/national regulations
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SECTION 14

Transport information

UN number	<i>Not applicable</i>
Proper shipping name	<i>Not applicable</i>
Class	<i>Not applicable</i>
Packing group	<i>Not applicable</i>
Transport category	<i>Not applicable</i>
Tunnel code	<i>Not applicable</i>
Packing instruction (ADR)	<i>Not applicable</i>
Packing instruction (IMDG)	<i>Not applicable</i>
Environmental hazards	<i>Not applicable</i>
Special precautions for user	<i>Not applicable</i>

SECTION 15

Regulatory information

REACH code	Y110
UFI code	<i>Not applicable</i>
ECHA notification	<i>Not applicable</i>
Chemical safety assessment carried out?	<i>Not applicable</i>

SECTION 16

Other information

Revision notes / other information

Revision date: 22/02/2022. Revision: 1. According to REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577.

CMR- California P65 List

SVHC- Substances of very high concern

This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.