


SAFETY DATA SHEET

2-ACETYL BUTYROLACTONE

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

1.1 Product identifier:	
CAS Number:	517-23-7
EC number:	208-235-2
1.2 SYNONYMS:	<ul style="list-style-type: none"> • 2-Acetyl-1,4-butanolide • Acetylbutyrolactone • 2-Acetyl-γ-butyrolactone

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	Labelling according to Regulation (EC) No 1272/2008 Skin irritation, (Category 2) Eye irritation, (Category 2)
Hazard Pictograms:	
Signal Word:	Danger
Hazard statements:	H315: Causes skin irritation. H319: Causes serious eye irritation.
Precautionary Statements:	P261: Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. P264: Wash skin thoroughly after handling. P280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection P270: Do not eat, drink or smoke when using this product. P271: Use only outdoors or in a well-ventilated area.

	<p>P302+P352: IF ON SKIN: Wash with plenty of water</p> <p>P301 + P312: IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.</p> <p>P304 + P340 + P312: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.</p> <p>P403+P233: Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405: Store locked up.</p> <p>P501: Dispose of contents/container to hazardous or special waste collection point</p>
2.3 Other hazards:	
Inhalation:	may cause respiratory irritation, dizziness, or headaches, and prolonged exposure can lead to more severe respiratory effects.
Ingestion:	may cause nausea, vomiting, abdominal pain, and other gastrointestinal distress, and could lead to more severe toxicity if consumed in large amounts.
Skin Contact:	may cause irritation, redness, or itching, and prolonged exposure could lead to more severe skin reactions.
Eye contact:	may cause irritation, redness, watering, and discomfort, and prolonged exposure could result in more serious eye damage.
Chronic Exposure:	may lead to persistent respiratory, skin, or eye irritation, and could potentially cause long-term damage to the liver or kidneys, depending on the level and duration of exposure.

Aggravation of pre-existing conditions:	may aggravate pre-existing conditions such as respiratory disorders (e.g., asthma or bronchitis), skin sensitivities, or eye conditions due to its irritant properties.
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SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 517-23-7 2-ACETYLBUTYROLACTONE
Identification number(s):	EC number: 208-235-2

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
After skin contact:	Remove contaminated clothing. Wash with soap and water. Consult a physician.
After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. consult a physician.
After swallowing:	Rinse mouth with water. Immediately after ingestion. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed:	may cause symptoms such as respiratory irritation, nausea, vomiting, and skin or eye irritation, while delayed effects could include

	persistent respiratory issues or skin reactions with prolonged exposure.
4.3 Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	Carbon dioxide. Water spray. Alcohol-resistant foam.
5.2 Special hazards arising from the substance or mixture:	Carbon oxides.
5.3 Advice for firefighters:	Wear fully protective suit, safety glasses and respiratory device. Cool tanks/drums with water spray/remove them into safety.
5.4 further information:	no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Avoid dust accumulation. Seek medical attention.
6.2 Environmental precautions:	Do not enter this chemical into drains.
6.3 Methods and material for containment and cleaning up:	Take up spill into absorbent material, e.g.: sand, earth, vermiculite, powdered limestone. Scoop absorbed substance into closing containers. Spill must not return in its original container. Clean contaminated surfaces with

	an excess of water. Wash clothing and equipment after handling.
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SECTION 7: Handling and storage

7.1 Precautions for safe handling:	For use in are with adequate ventilation. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material Do not use in confined spaces. Electrostatic discharge protection. Minimize dust generation and accumulation. Avoid ingestion and inhalation.
7.2 Conditions for safe storage, including any incompatibilities:	Store in original containers. Keep containers securely sealed Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Store in a dry and dark area. Do not handle in flammable atmospheres.
Requirements to be met by storerooms and receptacles:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
7.3 Specific end uses:	no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended.
8.2 Exposure controls	

Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	Respiratory protection: Required.
Protection of hands:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands.
	Eye protection: Required
Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance: Form:	Liquid
Colour:	Colourless to pale yellow.
Odour:	Sweet, fruity available
pH-value:	No data available
Melting point/Melting range:	-8°C
Boiling point/Boiling range:	205°C
Flammability (solid, gaseous):	Flammable liquid
Ignition temperature:	Not determined

Decomposition temperature:	No data available
Self-igniting:	None
Flash point:	95°C
Danger of explosion:	None
Explosion limits: Lower:	No data available
Explosion limits: Upper:	No data available
Vapour pressure:	0.03 mm Hg at 20°C
Density at 20 °C:	1.07g/cm ³
Relative density:	1.07
Vapour density:	No data available
Evaporation rate:	Not determined
Solubility in / Miscibility with- water at 20 °C:	Soluble
Partition coefficient:(n- octanol/water)	Not determined
Viscosity:	Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity	No data available
10.2 Chemical stability	This chemical is stable under storage conditions.
10.3 Possibility of hazardous reactions	May undergo polymerization reactions when reacted with strong oxidizing agents.
10.4 Conditions to avoid	Heat, high temperatures, flames,
10.5 Incompatible materials	Strong oxidizing agents, Strong acids, Strong bases, Moisture.
10.6 Hazardous decomposition products	carbon monoxide, carbon dioxide.

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	LD50 (Oral, Rat): no data available LD50 (Dermal, Rabbit): no data available

	LC50 (Inhalation Rat): no data available
Skin corrosion/Irritation:	Causes mild skin irritation
Serious eye damage/irritation:	Causes eye irritation
Respiratory damage/irritation:	may cause respiratory irritation
Ingestion:	May cause gastrointestinal irritation.
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
Specific target organ toxicity - single exposure:	No data available
Specific target organ toxicity - repeated exposure:	No data available
Aspiration hazard:	No data available
Signs and Symptoms of Exposure:	Refer section 2.3
11.2 Additional toxicological information	
Biodegradability:	Moderately Biodegradable

SECTION 12: Ecological information

12.1 Toxicity Aquatic toxicity:	LC50(fish): 30 mg/l (96hr) EC50(daphnia): 813 mg/l (48 hr) ErC50(algae): 500 mg/l (72 hr)
12.2 Persistence and degradability:	Moderately Biodegradable
12.3 Bioaccumulative potential:	Not bioaccumulative
12.4 Mobility in soil:	Moderate mobility
12.5 Other adverse effects:	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	Water, Soap or Detergent, Isopropyl alcohol, acetone.

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	Not classified
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	Not classified
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	Not classified
14.4 Packing group · ADR, IMDG, IATA:	Not classified
14.5 Environmental hazards:	None
14.6 Special precautions for user:	Handle responsibly.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU	Directive 2012/18/EU, under that this substance is not classified in listed substance
Named dangerous substances:	This substance is not listed in the annex 1 to the directive.
15.2 Chemical safety assessment:	Chemical assessment has not been carried out

SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.