SAFETY DATA SHEET
Methacrylamide

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier
Product Name Methacrylamide

Other means of identification
CAS-No 79-39-0

Recommended use of the chemical and restrictions on use
Recommended Use: Industrial use, manufacture of textiles in leather and fur articles. Manufacture of chemical products, fine chemicals, monomer for thermosetting paints in emulsions.
Restrictions on Use: Food, drug, pesticide or biocidal product use. Not recommended for use outside of recommended use.

Manufacturer/Supplier
Carbon Científica LTDA
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2. HAZARDS IDENTIFICATION

Signal Words: Warning

Pictograms:

GHS Classification

Specific target organ toxicity - single exposure	Category 2
Specific target organ toxicity - repeated exposure	Category 2
Acute toxicity, Oral	Category 4
Specific Target Organ Toxicity - Single Exposure, Respiratory Tract Irritation	Category 3
Serious eye injuries / Eye irritation	Category 2

GHS Label Elements, including precautionary statements:

Hazard Statements:

H302	Harmful if swallowed
H319	Causes serious eye irritation
H335	Serious eye injuries
H371	May cause damage to organs
H373	May cause damage to organs through prolonged or repeated exposure

Precautionary Statements:

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Causes serious eye irritation.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Causes serious eye irritation.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
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.
P308+P311	IF exposed or concerned: Call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P314	Get Medical advice/attention if you feel unwell.
P330	Rinse mouth.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P233	Store in a well ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

Hazards not otherwise classified (HNOC)
Acrid, repulsive odor; stench.
Rapidly absorbed through the skin.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Formula: C_4H_7NO

Chemical name	CAS-No	Weight %
Methacrylamide	79-39-0	100

4. FIRST AID MEASURES

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Seek immediate medical attention/advice.

Skin Contact
Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20minutes. Call a poison control center or doctor for further treatment advice.

Inhalation
Move to fresh air. If person is not breathing, contact emergency medical services, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Ingestion
Rinse mouth. Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention. Never give anything by mouth to an unconscious person.

Indication of immediate medical attention and special treatment needed, if necessary
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing media such as water fog or spray, dry chemical, carbon dioxide or foam.

Unsuitable Extinguishing Media
water jet

Special Hazards Arising from the Substance or Mixture
Combustible liquid. Vapors are heavier than air and can travel along the ground to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas. Closed containers may rupture due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Obtain medical attention.

Hazardous Combustion Products
In case of fire may be liberated: Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO_2).

Explosion Hazards
Avoid high temperatures, hot surfaces and sources of ignition. Heat can cause polymerization.

Protective equipment and precautions for firefighters
Use water spray to cool fire exposed surfaces and protect personnel. Move containers from fire area if you can do it without risk. As in any fire, wear self-contained breathing apparatus and full protectivegear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions
Do not let product enter drains.

Methods and materials for containment and cleaning up
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

7. HANDLING AND STORAGE

Precautions for safe handling
Provision of sufficient ventilation. Use extractor hood (laboratory). Avoid exposure. Avoid dust

formation. Clear contaminated areas thoroughly.

Measures to prevent fire as well as aerosol and dust generation
Removal of dust deposits.

Advice on general occupational hygiene
When using do not eat or drink. Thorough skin-cleansing after handling the product.

Conditions for safe storage, including any incompatibilities
Store in a dry place. Keep container tightly closed. Keep in a cool place.

Incompatible substances or mixtures
Observe hints for combined storage.

Protect against external exposure, such as
UV-radiation/sunlight

Consideration of other advice:
Store locked up.

Ventilation requirements
Keep any substance that emits harmful vapors or gases in a place that allows these to be permanently extracted. Use local and general ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls:

	Component Limits	Exposure	Basis	Entity
CAS: 79-41-4	**Methacrylic acid**	20 ppm TWA	TLV	ACGIH
		20 ppm - 70 mg/m^3 TWA, skin	PEL	OSHA
		20 ppm - 70 mg/m^3 TWA, skin	REL	NIOSH

TWA: Time Weighted Average over 8 hours of work.
TLV: Threshold Limit Value over 8 hours of work.
REL: Recommended Exposure Limit
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit during x minutes.
IDLH: Immediately Dangerous to Life or Health
WEEL: Workplace Environmental Exposure Levels
CEIL: Ceiling

Hazard Statements:

Eyes	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear neoprene or nitrile gloves, apron and other protective clothing appropriate to the risk of exposure.
Other	Not Available

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Powder
Color	White to light yellow
Odor	No data available
Odor threshold	No data available
pH (100 g/L solution)	7.1
Melting point/freezing point	111,3°C
Boiling point/range	225°C
Flash point	No data available
Evaporation rate (n-butyl-acetate = 1)	No data available
Flammability (solid, gas)	No data available
Explosive limit	15 g/m^3
Vapor pressure	0.00103 hPa at 25°C
Relative vapor density	2.94
Relative density	1.11 – 1.14
Solubility (ies)	Soluble in water: 202 g/L
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	510°C
Decomposition temperature	No data available
Molecular weight	85.10

10. STABILITY AND REACTIVITY

Reactivity
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.

Chemical Stability
The product is chemically stable under standard ambient conditions (room temperature).

Possibility of Hazardous Reactions
Violent reactions possible with: Strong oxidizing agents alkalines acids
Violent polymerization may be caused by: Peroxides

Conditions to Avoid
Avoid high temperatures, contact with incompatible materials, contact with metals, hot surfaces and sources of ignition. Heat can cause polymerization.

Incompatible Materials
Oxidizing agents, reducing agents, acids, bases, ultraviolet light or direct sunlight, free radical initiators, organic peroxides and mild steel.

Hazardous Decomposition Products
Thermal decomposition products include oxides of carbon, irritating and toxic fumes.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Methacrylamide

Eyes	Not Available
Respiratory	LD50 – rat – 1.0 mg/kg
Skin	LD50 Dermal – rabbit – 1,002 mg/kg
Ingestion	LD50 Oral – rat – 1,820 mg/kg

Signs & Symptoms of Exposure

Skin	Causes severe skin burn
Eyes	Causes burns and serious eye damage
Respiratory	Not Available
Ingestion	Not Available

12. ECOLOGICAL INFORMATION

Methacrylamide

Aquatic Vertebrate	> 100 mg/L (OECD 203: Fish, Acute Toxicity Test, 96 h, Oryzias latipes, Semi-static system, Fresh water, Experimental value, GLP)
Aquatic Invertebrate	> 1000 mg/L (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
Terrestrial	Not Available

Persistence and Degradability	This material is readily biodegradable
Bioaccumulative Potential	This material will not bioaccumulate
Mobility in Soil	The potential for mobility in soil for this material very high
PBT and vPvB Assessment	This material does not meet the criteria for PBT or vPvB according to Regulation.
Other Adverse Effects **Additional ecological information**	Do not allow to run into surface waters, wastewater or soil. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal

13. DISPOSAL CONSIDERATIONS

Waste Product or Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

14. TRANSPORTATION INFORMATION

Not classified as dangerous according to transport regulations

OTHER INFORMATION

No additional information available

15. REGULATORY INFORMATION

Brazilian Standart
ABNT NBR 14725-4:2014

16. OTHER INFORMATION

The information provided in this Safety Data Sheet ("SDS") is correct to the best of our knowledge, information, and belief at the date of publication. The information in this SDS relates only to the specific Product identified under Section 1, and does not relate to its use in combination with other materials or products, or its use as to any particular process. Those handling, storing, or using the Product should satisfy themselves that they have current information regarding the particular way the Product is handled, stored or used and that the same is done in accordance with federal, state and local law. The Carbon Científica NOT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE. The Carbon Científica DO NOT ASSUME RESPOSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.