Safety Data Sheet

1. Identification of the substance

Product Name:	4-Bromocrotonic acid
Synonyms:	
Catalog number:	QD-2037
Supplier:	Combi-Blocks, Inc., 7949 Silverton Ave # 915, San Diego, CA 92126, USA. Tel: 858-635-8950

2. Hazards identification

Pictograms



Single word	Danger		
H290	May be corrosive to metals		
H314	Causes severe skin burns and eye damage		
P234	Keep only in original container		
P260	Do not breathe dust/fume/gas/mist/vapours/spray		
P264	Wash thoroughly after handling		
P280	Wear protective gloves/protective clothing/eye protection/face protection		
P301+P330+P331	If swallowed Rinse mouth. Do NOT induce vomiting		
P303+P361+P353	If on skin (or hair) Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower		
P304+P340	If inhaled Remove victim to fresh air and keep at rest in a position 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 or doctor/physician		
P321	Specific treatment (see ?? on this label)		
P363	Wash contaminated clothing before reuse		
P405	Store locked up		

3. Composition/information on ingredients.

Ingredient name:	4-Bromocrotonic acid
CAS number:	13991-36-1

4. First aid measures

Skin contact:	Immediately wash skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes. If irritation persists, seek medical attention.
Eye contact:	Immediately wash skin with copious amounts of water for at least 15 minutes. Assure adequate flushing of the eyes by separating the eyelids with fingers. If irritation persists, seek medical attention.
Inhalation:	Remove to fresh air. In severe cases or if symptoms persist, seek medical attention.
Ingestion:	Wash out mouth with copious amounts of water for at least 15 minutes. Seek medical attention.

5. Fire fighting measures

In the event of a fire involving this material, alone or in combination with other materials, use dry powder or carbon dioxide extinguishers. Protective clothing and self-contained breathing apparatus should be worn.

6. Accidental release measures

Personal precautions: Wear suitable personal protective equipment which performs satisfactorily and meets local/state/national standards.

Respiratory precaution:	Wear approved mask/respirator
Hand precaution:	Wear suitable gloves/gauntlets
Skin protection:	Wear suitable protective clothing
Eye protection:	Wear suitable eye protection

Methods for cleaning up: Mix with sand or similar inert absorbent material, sweep up and keep in a tightly closed container for disposal. See section 12.

Environmental precautions: Do not allow material to enter drains or water courses.

7. Handling and storage

Handling:	This product should be handled only by, or under the close supervision of, those properly qualified
	in the handling and use of potentially hazardous chemicals, who should take into account the fire,
	health and chemical hazard data given on this sheet.
Storage:	Store in closed vessels, refrigerated.

8. Exposure Controls / Personal protection

Engineering Controls: Use only in a chemical fume hood. *Personal protective equipment:* Wear laboratory clothing, chemical-resistant gloves and safety goggles. *General hydiene measures:* Wash thoroughly after handling. Wash contaminated clothing before reuse.

9. Physical and chemical properties

Appearance:	Not specified
Boiling point:	No data
Melting point:	No data
Flash point:	No data
Density:	No data
Molecular formula:	$C_4H_5BrO_2$
Molecular weight:	165.0

10. Stability and reactivity

Conditions to avoid:Heat, flames and sparks.Materials to avoid:Oxidizing agents.Possible hazardous combustion products:Carbon monoxide, hydrogen bromide.

11. Toxicological information

Acute toxicity:No data available.Skin irritation/corrosion:Causes severe skin burns and eye damage.Eye damage/irritation:Causes severe skin burns and eye damage.Respiratory or skin sensitization:No data available.Germ cell mutagenicity:No data available.Carcinogenicity:No classification data on carcinogenic properties of this material is available from EPA, IARC,
NTP, OSHA or ACGIH.Reproductive toxicity:No effects known.

Specific target organ system toxicity - repeated exposure: No effects known.

Specific target organ system toxicity - single exposure: No data available.

Aspiration hazard: No data available.

Additional information: To the best of our knowledge, the chemical, physical and toxicological properties of this substance have not been thoroughly investigated.

12. Ecological information

Toxicity: No data available.

Persistence and degradability: No data available.

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

Result of PBT and vPvB assessment: PBT: Not applicabel. vPvB: Not applicable.

Other adverse effects: No further relevant information available.

13. Disposal consideration

Arrange disposal as special waste, by licensed disposal company, in consultation with local waste disposal authority, in accordance with national and regional regulations.

14. Transportation information

UN Number:	UN3261	Class: 8	Packing group: III
Proper shipping name:	CORROSIV	E SOLID, AC	CIDIC, ORGANIC, N.O.S. (4-Bromocrotonic acid)

15. Regulatory information

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302, or have known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.

16. Other information

This MSDS is correct to the best of our knowledge at the date of publication but does not purport to be all inclusive and shall be used only as a guide. Combi-Blocks shall not be held liable for any injury or damage resulting from handling or from contact with the above product.