

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product: BCP Phase Separation Reagent
Cat. No. BP 151

Molecular Research Center, Inc.
5645 Montgomery Rd.
Cincinnati, Ohio 45212
USA 1-888-841-0900
Fax: 513-841-0080

Product Name: BCP Phase Separation Reagent

Application: Phase separation reagent for TRI Reagent RNA extraction reagents

Synonyms: trimethylene bromochloride; 3-bromopropyl chloride; omega-chlorobromopropane; 1-chloro-3-bromopropane (DOT); 3-chloropropyl bromide.

Chemical Formula: C₃H₆BrCl

Molecular Weight: 157.44

CHEMTREC EMERGENCY NUMBER: Only in the event of an emergency involving a spill, leak, fire exposure or accident. USA: 1-800-424-9300; International: +1-703-527-3887.

2. HAZARD IDENTIFICATION

OSHA

Combustible liquid
Harmful by ingestion
Toxic by inhalation

GHS Label elements

Pictogram:



Signal word: Danger

Health Hazard

Hazard Class	Hazard category	Code	Health Hazard Statements
Flammable liquids	Category 3	H226	Flammable liquid and vapor
Acute toxicity, oral	Category 4	H302	Harmful if swallowed
Acute toxicity, inhalation	Category 3	H332	Harmful if inhaled

Precautionary statements

BCP phase separation reagent

Code	Prevention precautionary statements
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P235	Keep cool.
P261	Avoid breathing dust/fumes/gas/mist/vapors/spray.
P264	Wash...thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use in a well-ventilated area.
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	If Swallowed: Call a POISON CENTER or doctor/physician
P301+P330+P331	If Swallowed: Rinse mouth. Do not induce vomiting
P302+P361+P352	If on skin: Remove/Take off all contaminated clothing. Wash with plenty of soap and water.
P306+P363	If on clothing: Wash contaminated clothing before reuse.
P304+P340	If Inhaled: Remove victim to fresh air and keep at rest in a comfortable position 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.
P303+P361+P353	If on skin or hair: Immediately take off all contaminated clothing. Rinse skin with water/shower.
P309+P311	If exposed or you feel unwell: Call a POISON CENTER or doctor/physician.
P370+P378	In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
P403+P233	Store in well-ventilated location. Keep container tightly closed.

HMIS Classification

Health Hazard 2
 Flammability 2
 Physical hazards 0
 PPE= H

NFPA Rating

Health Hazard 1
 Fire 2
 Reactivity 0

Potential Health Effects

Inhalation Toxic if inhaled. May cause respiratory track irritation.
Skin Harmful if absorbed through the skin. May cause skin irritation.
Eyes May cause eye irritation.
Ingestion Harmful if swallowed.

3. COMPOSITION/Information on Ingredients

Component	Classification	Concentration
1-Bromo-3-chloropropane	CAS-No. 109-70-6 EINECS No. 203-697-1	> 98 %

4. FIRST AID

CHEMICAL EXPOSURE

- EYE CONTACT:** Check for and remove any contact lenses. Flush eyes with water for 15 min., holding eyelids open. Obtain medical attention.
- SKIN CONTACT:** Flush skin with soap and water for 15 min. Remove contaminated clothing and thoroughly wash clothing before reuse. Consult a physician.
- INHALATION:** Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. Obtain medical attention.
- INGESTION:** If swallowed, rinse mouth with water if person is conscious. Do not induce vomiting unless directed so by medical personnel. Obtain medical attention. Loosen tight clothing such as a collar, tie, belt or waistband.

5. FIRE FIGHTING MEASURES

FLASH POINTS: Closed cup 45C (113F)

FIRE HAZARDS: Flammable in the presence of an open flame and sparks at temperature above the flash point.

EXTINGUISHING MEDIA: May be combustible at high temperatures. Extinguishing media appropriate to surrounding fire conditions. Small Fire: Use dry chemical powder. Large Fire: Use water spray, fog or foam. Do not use water jet. Emits toxic fumes under fire conditions (chloride, bromide).

HAZARDOUS COMBUSTION PRODUCTS: Hazardous decomposition products formed under fire conditions. Carbon oxides, hydrogen chloride gas, hydrogen bromide gas.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTIVE EQUIPMENT FOR SPILL CONDITIONS: Note that accidental releases may be subject to special state or local reporting requirements and other regulatory mandates. Check and comply with local laws and regulations. Do not allow chemical to enter drain. Avoid breathing vapor, mist or gas. Use gloves and other appropriate protective covering to avoid skin contact. Ensure adequate ventilation. Beware of vapors accumulating to form explosive concentrations. Remove all sources of ignition. Use goggles, face shield or other eye protection. Contain spill with an inert adsorbent such as vermiculite, sand or earth. Place spill material in a suitable container and hold for disposal. Wash spill site after pickup is complete.

7. HANDLING AND STORAGE

Store in a cool, dry place in tightly sealed containers. Keep away from heat. Take measures to prevent the buildup of electrostatic charge. Ensure good ventilation at the workplace. Practice good laboratory techniques when handling this substance. After using the chemical, wash hands thoroughly. Use adequate ventilation and avoid breathing vapor, mist or gas. Empty containers pose a fire risk and any residue should be evaporated under a fume hood. Keep away from incompatibles such as oxidizing agents, metals and alkalis.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

For routine operations wear safety glasses, latex gloves and a chemical apron to avoid contact with eyes, skin and clothing. Facilities utilizing this chemical should be equipped with an eyewash station and safety shower. Use adequate ventilation to keep airborne concentrations below the permissible exposure limits. (No PELs are listed for this chemical). Wash contaminated clothing before reuse. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless liquid.
Odor:	Chloroform-like, sweetish odor.
Molecular Weight:	157.44 g/ mole
PH:	N/A
Refractive Index:	1.486
Vapor Pressure:	6.6 mbar @ 20 C
Density:	1.592 at 25 C (77 F) (water = 1)
Boiling point:	145 C (293 F)
Melting point:	- 59 C
Flash point:	Closed Cup 45 C (113 F)
Solubility:	Insoluble in cold water, hot water.
Partition coefficient:	log Pow: 2.2 n-octanol/water

10. STABILITY AND REACTIVITY

Stable under recommended storage conditions.

INCOMPATIBILITIES: Heat, sparks, ignition sources, strong bases, strong oxidizing agents, magnesium, zinc, aluminum.

DECOMBUSTION PRODUCTS: Hydrogen chloride, phosgene, carbon monoxide, carbon dioxide, and hydrogen bromide gas.

11. TOXICOLOGICAL INFORMATION

RTECS# TX4113000 DOT: POISON B, 6.1, III

Rat: Inhalation: LC50=5668 mg/m³; oral LD50=930 mg/kg; Mouse: oral LD50=1290 mg/kg. LCLo/2H: 7270 mg/m³.

CARCINOGENICITY: Not listed by ACGIH, NIOSH, NTP OR OSHA. TARGET ORGAN DATA.

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: Harmful to fish; LC50 (24 hr) goldfish 75 mg/l- 24 h.

Possibly hazardous short-term degradation products are not likely; however, long-term degradation products are possible. The products of degradation are as toxic as the product itself.

13. DISPOSAL CONSIDERATIONS

Keep in sealed containers until final disposal. Dispose of in a manner consistent with federal, state and local regulations. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORTATION INFORMATION

DOT (US)

UN number: 2688 Class: 6.1 Packing group: III; Packing Instruction 655.
Proper shipping name: 1-Bromo-3-chloropropane
Reportable Quantity (RQ):
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

UN number: 2688 Class: 6.1 Packing group: III EMS-No: F-A, S-A
Proper shipping name: 1-BROMO-3-CHLOROPROPANE
Marine pollutant: No

IATA

UN number: 2688 Class: 6.1 Packing group: III
Proper shipping name: 1-Bromo-3-chloropropane

Land Transportation ADR/RID:
Danger code (Kemler): 60

15. REGULATORY INFORMATION

OSHA Hazards

Combustible Liquid. Toxic by inhalation. Harmful by ingestion.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

1-Bromo-3-chloropropane

CAS-No.

109-70-6

Revision Date
2007-03-01

New Jersey Right To Know Components

1-Bromo-3-chloropropane

CAS-No.

109-70-6

Revision Date

2007-03-01

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

WGK (Water Danger/ Protection) CAS # 109-70-6: 3

Canada: CAS# 109-70-6 is listed in Canada's DSL List and Ingredient Disclosure List

Exposure Limits: CAS# 109-70-6: OEL-Russia: STEL 3 mg/m³ US Federal

This product is on the European Inventory of Existing Commercial Chemical Substances.

16. OTHER INFORMATION

Reviewed by	BW, MJ
Creation date	11/01/07
Revision date	10/16/2023 SP

Reason for Revision: Update to Globally Harmonized System of Chemical Classification.

This information is believed to be accurate and represents the information currently available to us. However, we make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.