

SAFETY DATA SHEET

according to US Regulation 29 CFR 1910.1200 and the Canadian HPA

RENDEZVOUS SPA SPECIALTIES BROMA-START

Version 1.0

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SECTION 1. IDENTIFICATION

Product name : RENDEZVOUS SPA SPECIALTIES BROMA-START

Manufacturer or supplier's detailsCompany : Arch Chemicals, Inc.
1200 Bluegrass Lakes Parkway
Alpharetta, GA
30004
United States of America (USA)

E-mail address : sds@lonza.com

Emergency telephone number : In case of emergency call CHEMTREC US: 1-800-424-9300,
CHEMTREC WORLD-WIDE: +1-703-527-3887.**Recommended use of the chemical and restrictions on use**

Recommended use : Water treatment chemical

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Eye irritation : Category 2B

GHS label elements

Signal word : Warning

Hazard statements : H320 Causes eye irritation.

Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.**Other hazards**

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Substance

Hazardous components

Chemical name / Synonyms	CAS-No.	Concentration (% w/w)
Sodium bromide	7647-15-6	99 - 100

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No hazardous ingredients

SECTION 4. FIRST AID MEASURES

- | | | |
|---|---|--|
| If inhaled | : | IF INHALED: Remove individual to fresh air. Seek medical attention if breathing becomes difficult or if respiratory irritation develops. If not breathing, give artificial respiration. Call for medical assistance. |
| In case of skin contact | : | IF ON SKIN: Flush skin with water for 15 minutes. Take off all contaminated clothing. Seek medical attention if irritation develops. |
| In case of eye contact | : | IF IN EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention immediately. |
| If swallowed | : | IF SWALLOWED: Call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. |
| Most important symptoms and effects, both acute and delayed | : | None known. |
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SECTION 5. FIREFIGHTING MEASURES

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|--------------------------------------|---|--|
| Suitable extinguishing media | : | Not Applicable. - Choose extinguishing media suitable for surrounding materials. |
| Specific hazards during firefighting | : | Material will not ignite or burn. |
| Further information | : | In case of fire, use normal fire-fighting equipment and the personal protective equipment recommended in Section 8 to include a NIOSH approved self-contained breathing apparatus. |
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SECTION 6. ACCIDENTAL RELEASE MEASURES

- | | | |
|---|---|--|
| Personal precautions, protective equipment and emergency procedures | : | Use the personal protective equipment recommended in Section 8 and a NIOSH approved self-contained breathing apparatus.
Stop source of spill as soon as possible and notify appropriate personnel.
Utilize emergency response personal protection equipment prior to the start of any response.
Evacuate all non-essential personnel.
Dispose of spill residues per guidelines under Section 13, Disposal Consideration. |
| Environmental precautions | : | If the product contaminates rivers and lakes or drains inform respective authorities. |
| Methods and materials for containment | : | Sweep up and shovel into suitable containers for disposal. |

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ment and cleaning up : Do not flush into surface water or sanitary sewer system.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid inhalation of dust and fumes.

Conditions for safe storage : Store in a cool, dry and well ventilated place. Keep containers tightly closed when not in use. Avoid creating dusts.

Materials to avoid : Refer to Section 10, "Incompatible Materials."

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Ventilation beyond that of general exhaust is not normally required. No exposure limits exist for the constituents of this product.

Personal protective equipment

Respiratory protection : Respiratory protection not normally needed. If dusting occurs, wear a NIOSH approved respirator. Wear a NIOSH approved N95 respirator.

Hand protection

Remarks : Wear impervious gloves to avoid skin contact.

Eye protection : Use safety glasses with side shields. Emergency eyewash should be provided in the immediate work area.

Skin and body protection : Impervious

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : crystalline

Colour : no data available

Odour : no data available

Odour Threshold : no data available

pH : 6.5 - 8.0
1% solution

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Melting point/freezing point	: 1391 °F / 755 °C
Boiling point/boiling range	: 2,534 °F / 1,390 °C
Flash point	: no data available
Evaporation rate	: Not applicable
Flammability (solid, gas)	: Product is not known to be flammable, combustible, pyrophoric or explosive.
Flammability (liquids)	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 1.3 hPa (1483 °F / 806 °C)
Relative vapour density	: Not applicable
Relative density	: 3.21 (68 °F / 20 °C)
Density	: no data available
Bulk density	: no data available
Water solubility	: 946 g/l (77 °F / 25 °C)
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: no data available
Decomposition temperature	: no data available
Viscosity, dynamic	: Not applicable
Viscosity, kinematic	: no data available
Molecular weight	: 102.9 g/mol

SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	: Stable under normal conditions.
Conditions to avoid	: High temperatures Exposure to moist air or water Contact with incompatible substances
Incompatible materials	: Strong oxidizing agents Strong acids Bromine trifluoride Heavy metal salts
Hazardous decomposition products	: Hydrogen bromide Sodium oxides

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SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, skin, eyes, ingestion
sure

Acute toxicity

Acute oral toxicity : LD50 (Rat): = 3,500 mg/kg

Acute inhalation toxicity : Remarks: no data available

Acute dermal toxicity : LD50 (Rabbit): Believed to be > 2,000 mg/kg

Acute toxicity (other routes of administration) :

Remarks: May cause mild skin and eye irritation. Inhalation of dust may cause mild mucous membrane irritation (includes upper respiratory tract). Ingestion may cause gastrointestinal discomfort.

Skin corrosion/irritation

Remarks: May cause mild skin irritation.

Serious eye damage/eye irritation

Result: Mild eye irritation

Respiratory or skin sensitisation

Remarks: This material tested negative for skin sensitization in animals.

Carcinogenicity**IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Repeated dose toxicity

Remarks: Not known or reported to cause subchronic or chronic toxicity.

Further information

Remarks: no data available

SECTION 12. ECOLOGICAL INFORMATION

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Ecotoxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

Other adverse effects

Ozone-Depletion Potential : Regulation: US. EPA Clean Air Act (CAA) Section 602 Ozone-Depleting Substances (40 CFR 82, Subpt. A, App A & B)
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : Practically non- toxic to fish and other aquatic organisms.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : If this product becomes a waste, it will be a nonhazardous waste.
As a nonhazardous solid waste it should be disposed of in accordance with local, state and federal regulations.

SECTION 14. TRANSPORT INFORMATION**DOT**:
Not dangerous goods**UN number**

: Not applicable

Proper shipping name

: Not applicable

Transport hazard class

: Not applicable

Packing group

: Not applicable

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TDG	:	Not dangerous goods
UN number	:	Not applicable
Proper shipping name	:	Not applicable
Transport hazard class	:	Not applicable
Packing group	:	Not applicable
IATA	:	Not dangerous goods
UN number	:	Not applicable
Proper shipping name	:	Not applicable
Transport hazard class	:	Not applicable
Packing group	:	Not applicable
IMDG	:	Not dangerous goods
UN number	:	Not applicable
Proper shipping name	:	Not applicable
Transport hazard class	:	Not applicable
Packing group	:	Not applicable
ADR	:	Not dangerous goods
UN number	:	Not applicable
Proper shipping name	:	Not applicable
Transport hazard class	:	Not applicable
Packing group	:	Not applicable
RID	:	Not dangerous goods
UN number	:	Not applicable
Proper shipping name	:	Not applicable
Transport hazard class	:	Not applicable
Packing group	:	Not applicable
Special precautions for user	:	none
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	Not applicable

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards

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See above: SECTION 2. Hazard Identification-GHS Classification

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.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

Clean Water Act

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

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

Pennsylvania Right To Know

Components	CAS-No.
Sodium bromide	7647-15-6

New Jersey Right To Know

Components	CAS-No.
Sodium bromide	7647-15-6

California Prop. 65

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

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Canadian lists

NPRI

Canadian National Pollutant Release Inventory (NPRI): No component is listed on NPRI.

The components of this product are reported in the following inventories:

TSCA : The components of this product are listed on the TSCA Inventory of Existing Chemical Substances.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

First formulated version in SAP.

Revision Date : 2019.03.19

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid

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for such material used in combination with any other materials or in any process, unless specified in the text.

Date format : yyyy/mm/dd

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