

SAFETY DATA SHEET

according to US Regulation 29 CFR 1910.1200 and the Canadian HPA

GLB Rendezvous Activate

Version 1.0

Revision Date 2019.01.09

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SECTION 1. IDENTIFICATION

Product name : GLB Rendezvous Activate

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**

Acute toxicity (Oral) : Category 4

Skin irritation : Category 2

Serious eye damage : Category 1

Respiratory sensitisation : Category 1

Skin sensitisation : Category 1

Reproductive toxicity : Category 1B

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H302 + H332 Harmful if swallowed or if inhaled.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H360 May damage fertility or the unborn child.

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Precautionary statements : **Prevention:**
 P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P260 Do not breathe dust or mist.
 P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P271 Use only outdoors or in a well-ventilated area.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P284 In case of inadequate ventilation wear respiratory protection.
Response:
 P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
 P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
 P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
 P306 + P360 IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.
 P362 + P364 Take off contaminated clothing and wash it before reuse.
Storage:
 P405 Store locked up.
Disposal:
 P501 Dispose of contents/container in accordance with local regulation.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical name / Synonyms	CAS-No.	Concentration (% w/w)
Potassium hydrogenperoxomonosulphate	10058-23-8	25 - 35
Sodium tetraborate pentahydrate	12179-04-3	20 - 30
Potassium hydrogensulphate	7646-93-7	10 - 20
Dipotassium peroxodisulphate	7727-21-1	1 - 3
Magnesium carbonate	546-93-0	1 - 3

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SECTION 4. FIRST AID MEASURES

General advice	:	Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
If inhaled	:	IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
In case of skin contact	:	IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
In case of eye contact	:	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If swallowed	:	IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	:	None known.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water
Specific hazards during firefighting	:	Will release oxygen when heated, intensifying a fire Will not 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. Use a water spray to cool fully closed containers.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection. Prevent further leakage or spillage if safe to do so. Use personal protective equipment as required. Evacuate personnel to safe areas.
Environmental precautions	:	If the product contaminates rivers and lakes or drains inform

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respective authorities.

Methods and materials for containment and cleaning up : Sweep up and shovel into suitable containers for disposal.
Avoid dust formation.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Avoid breathing dust.
Do not take internally.
Avoid contact with skin, eyes and clothing.

Conditions for safe storage : Protect from moisture.
Keep containers tightly closed in a cool, well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Sodium tetraborate pentahydrate	12179-04-3	(Inhalable fraction.)		ACGIH
		TWA (Inhalable fraction.)	2 mg/m ³	ACGIH
		STEL (Inhalable fraction.)	6 mg/m ³	ACGIH
		REL	1 mg/m ³	NIOSH/GUIDE
		TWA	10 mg/m ³	Z1A
Dipotassium peroxodisulphate	7727-21-1	TWA	0.1 mg/m ³ (as persulfate)	ACGIH
Magnesium carbonate	546-93-0	REL (Total)	10 mg/m ³	NIOSH/GUIDE
		REL (Respirable.)	5 mg/m ³	NIOSH/GUIDE
		PEL (Total dust.)	15 mg/m ³	OSHA_TRANS
		PEL (Respirable fraction.)	5 mg/m ³	OSHA_TRANS
		TWA (Total dust.)	15 mg/m ³	Z1A
		TWA (Respirable fraction.)	5 mg/m ³	Z1A

Engineering measures : Local exhaust ventilation or other engineering controls are normally required when handling or using this product to keep airborne exposures below the TLV, PEL or other recommended exposure limit.

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Personal protective equipment

Respiratory protection	:	Wear a NIOSH approved respirator if levels above the exposure limits are possible. A NIOSH approved full-face or half-face respirator in combination with chemical goggles. NIOSH approved half-face air purifying respirator with an N95 filter. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.
Hand protection	:	
Remarks	:	Wear impervious gloves, boots and apron to avoid skin contact. A full impervious suit is recommended if exposure is possible to a large portion of the body.
Eye protection	:	Use chemical goggles.
Skin and body protection	:	Neoprene
Protective measures	:	Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	granular
Colour	:	white
Odour	:	none
Odour Threshold	:	no data available
pH	:	5.5 - 6.5
Melting point/freezing point	:	no data available
Boiling point/boiling range	:	no data available
Flash point	:	no data available
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Not combustible.
Flammability (liquids)	:	no data available
Upper explosion limit	:	no data available
Lower explosion limit	:	no data available
Vapour pressure	:	no data available
Relative vapour density	:	Not volatile
Relative density	:	1.2 (68 °F / 20 °C)

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Bulk density	:	no data available
Water solubility	:	250 g/l (68 °F / 20 °C)
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	no data available
Decomposition temperature	:	no data available
Viscosity, dynamic	:	no data available
Viscosity, kinematic	:	no data available

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	:	Heat Exposure to moisture
Incompatible materials	:	This product is chemically reactive with many substances, including, e.g., other pool treatment products, acids, organics, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, corrosive, flammable or combustible materials. Halides Avoid moisture. Heavy metals
Hazardous decomposition products	:	Decomposes when heated or dampened, releasing oxygen and heat Carbon dioxide (CO ₂) Carbon monoxide Chlorine

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	:	Inhalation Ingestion Eyes Skin
Acute toxicity		
Acute oral toxicity	:	LD50 (Rat): Believed to be approximately 2,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): Believed to be > 5 mg/l Exposure time: 1 h Test atmosphere: dust/mist
Acute dermal toxicity	:	LD50 (Rabbit): Believed to be > 2,000 mg/kg
Acute toxicity (other routes of administration)	:	Remarks: Moderate skin irritation The dry material is irritating to the skin. However when wet, it will produce burns to the skin.

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Corrosive to eyes

Skin corrosion/irritation

Remarks: The dry material is irritating to the skin. However when wet, it will produce burns to the skin.
Moderate skin irritation
Irritating to skin.

Serious eye damage/eye irritation

Result: Corrosive to eyes

Respiratory or skin sensitisation

Remarks: May produce an allergic reaction.

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: Sodium tetraborate pentahydrate is chemically and toxicologically related to Boric Acid; the majority of the borate chronic toxicology studies were conducted using Boric Acid. Sodium tetraborate pentahydrate is converted to Boric Acid in biological systems.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

no data available

Persistence and degradability

no data available

Bioaccumulative potential**Components:****Potassium hydrogensulphate:**

Partition coefficient: n-octanol/water : Remarks: Not applicable

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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 : Moderately 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

UN number : 3260
Proper shipping name : Corrosive solid, acidic, inorganic, n.o.s.
(Potassium hydrogenperoxomonosulphate)
Transport hazard class : 8
Packing group : II
Labels : 8
Emergency Response Guidebook : 154
Number
Environmental hazards : no

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TDG

UN number : 3260
Proper shipping name : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.
(Potassium hydrogenperoxomonosulphate)
Transport hazard class : 8
Packing group : II
Labels : 8
Environmental hazards : no

IATA

UN number : 3260
Proper shipping name : Corrosive solid, acidic, inorganic, n.o.s.
(Potassium hydrogenperoxomonosulphate)
Transport hazard class : 8
Packing group : II
Labels : 8
Environmental hazards : no

IMDG

UN number : 3260
Proper shipping name : Corrosive solid, acidic, inorganic, n.o.s.
(Potassium hydrogenperoxomonosulphate)
Transport hazard class : 8
Packing group : II
Labels : 8
EmS Number 1 : F-A
EmS Number 2 : S-B
Environmental hazards : Marine pollutant: no

ADR

UN number : 3260
Proper shipping name : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.
(Potassium hydrogenperoxomonosulphate)
Transport hazard class : 8
Packing group : II
Classification Code : C2
Hazard Identification Number : 80
Labels : 8
Environmental hazards : no

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RID

UN number	: 3260
Proper shipping name	: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Potassium hydrogenperoxomonosulphate)
Transport hazard class	: 8
Packing group	: II
Classification Code	: C2
Hazard Identification Number	: 80
Labels	: 8
Environmental hazards	: no
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

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 I 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.

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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

Components	CAS-No.
Sodium tetraborate pentahydrate	12179-04-3
Dipotassium peroxodisulphate	7727-21-1
Magnesium carbonate	546-93-0

Pennsylvania Right To Know

Components	CAS-No.
Potassium hydrogenperoxomonosulphate	10058-23-8
Sodium tetraborate pentahydrate	12179-04-3
Potassium sulfate	7778-80-5
Potassium hydrogensulphate	7646-93-7

New Jersey Right To Know

Components	CAS-No.
Potassium hydrogenperoxomonosulphate	10058-23-8
Sodium tetraborate pentahydrate	12179-04-3
Potassium sulfate	7778-80-5
Potassium hydrogensulphate	7646-93-7
Dipotassium peroxodisulphate	7727-21-1
Magnesium carbonate	546-93-0

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.

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

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Full text of other abbreviations

ACGIH	:	US. ACGIH Threshold Limit Values
NIOSH/GUIDE	:	US. NIOSH: Pocket Guide to Chemical Hazards
OSHA_TRANS	:	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
Z1A	:	US. OSHA Table Z-1-A (29 CFR 1910.1000)

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; KECl - 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

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

Date format : yyyy/mm/dd

US / EN