

## **MATERIAL SAFETY DATA SHEET (SDS/MSDS)**

**BARIUM PERCHLORATE 0.005 MOL/L  
(0.005M) ALCOHOLIC SOLUTION**

**CAS-No.: NA**

**Product Code: 00346**

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product form : Mixture  
Trade name : Barium Perchlorate 0.005 MOL/L (0.005M) Alcoholic Solution

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**1.2.1. Relevant identified uses**

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

Company : Chemnovo Synthesis Pvt Ltd.  
N-226 Near Kumbhavali Naka  
Tarapur MIDC, Boisar-401 506  
Palghar, Maharashtra  
Telephone : +91 7400096089  
Email: export@chemnovo.in

**1.4. Emergency telephone number**

Emergency number : + 91 7400096089 (9:00am - 6:00 pm)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, H225

Category 2

Serious eye damage/eye H319

irritation, Category 2

Specific target organ H336

toxicity – Single

exposure, Category 3,

Narcosis

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

**2.2. Label elements**

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02



GHS07

Signal word (CLP)	:	Danger
Hazard statements (CLP)	:	H225 - Highly flammable liquid and vapour. H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness.
Precautionary statements (CLP)	:	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P261 - Avoid breathing vapours, dust, fume, gas.

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Propan-2-ol	(CAS-No.) 67-63-0 (EC-No.) 200-661-7	>= 99	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Barium perchlorate	(CAS-No.) 13465-95-7 (EC-No.) 236-710-4	0.01 - 1	Ox. Sol. 1, H271 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Oral), H302

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	:	Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
First-aid measures after skin contact	:	Get immediate medical advice/attention. Wash with plenty of water/....

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting

**4.2. Most important symptoms and effects, both acute and delayed**

Symptoms/effects after inhalation : May cause drowsiness or dizziness.

Symptoms/effects after eye contact : Causes serious eye irritation.

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

**5.2. Special hazards arising from the substance or mixture**

Fire hazard : Flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapour-air mixture.

**5.3. Advice for firefighter**

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open

**6.1.1. For non-emergency personnel**

Emergency procedures : Evacuate unnecessary personnel.

**6.1.2. For emergency responders**

Protective equipment : Use personal protective equipment as required.

Emergency procedures : Ventilate area.

**6.2. Environmental precautions**

Avoid release to the environment.

**6.3. Methods and material for containment and cleaning up**

Methods for cleaning up : Collect spillage. On land, sweep or shovel into suitable containers.

**6.4. Reference to other sections**

No additional information available

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

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Precautions for safe handling	:	Avoid contact with skin and eyes. Take precautionary measures against static discharge. Use only non-sparking tools. Keep away from sources of ignition - No smoking. Use only outdoors or in a well-ventilated area. Do not breathe vapours.
Hygiene measures	:	Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

**7.2. Conditions for safe storage, including any incompatibilities**

Technical measures	:	Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.
Storage conditions	:	Keep container tightly closed. Keep in fireproof place.
Incompatible materials	:	Heat sources.

**7.3. Specific end use(s)**

No additional information available

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

No additional information available

**8.2. Exposure controls**

Hand protection	:	Protective gloves
Eye protection	:	Chemical goggles or safety glasses
Skin and body protection	:	Wear suitable protective clothing
Respiratory protection	:	Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state	:	Liquid
Colour	:	Colourless.
Odour	:	No data available
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Flammable liquid and vapour
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available

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Relative density	:	No data available
Solubility	:	No data available
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

**9.2. Other information**

No additional information available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No additional information available

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

No additional information available

**10.4. Conditions to avoid**

Open flame. Heat. Sparks.

**10.5. Incompatible materials**

No additional information available

**10.6. Hazardous decomposition products**

May release flammable gases.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

Acute toxicity	:	Not classified
Skin corrosion/irritation	:	Not classified
Serious eye damage/irritation	:	Causes serious eye irritation.
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
STOT-single exposure	:	May cause drowsiness or dizziness.
STOT-repeated exposure	:	Not classified
Aspiration hazard	:	Not classified

**SECTION 12: Ecological information**

**12.1. Toxicity**

No additional information available

**12.2. Persistence and degradability**

No additional information available

**12.3. Bioaccumulative potential**

No additional information available

**12.4. Mobility in soil**

No additional information available

**12.5. Results of PBT and vPvB assessment**

No additional information available

**12.6. Other adverse effects**

No additional information available

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Product/Packaging disposal recommendations	:	Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Additional information	:	Handle empty containers with care because residual vapours are flammable.

**SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN

**14.1. UN number**

UN-No. (ADR)	:	1219
UN-No. (IMDG)	:	1219
UN-No. (IATA)	:	1219
UN-No. (ADN)	:	1219
UN-No. (RID)	:	1219

**14.2. UN proper shipping name**

Proper Shipping Name (ADR)	:	ISOPROPANOL (ISOPROPYL ALCOHOL)
Proper Shipping Name (IMDG)	:	ISOPROPANOL (ISOPROPYL ALCOHOL)
Proper Shipping Name (IATA)	:	ISOPROPANOL
Proper Shipping Name (ADN)	:	ISOPROPANOL (ISOPROPYL ALCOHOL)
Proper Shipping Name (RID)	:	ISOPROPANOL (ISOPROPYL ALCOHOL)
Transport document description (ADR)	:	UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II, (D/E)
Transport document description (IMDG)	:	UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II (12°C c.c.)
Transport document description (IATA)	:	UN 1219 ISOPROPANOL, 3, II
Transport document description (ADN)	:	UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II
Transport document description (RID)	:	UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II

**14.3. Transport hazard class(es)**

ADR

Transport hazard class(es) (ADR) : 3

Danger labels (ADR) : 3

:



IMDG

Transport hazard class(es) (IMDG) : 3

Danger labels (IMDG) : 3

:



IATA

Transport hazard class(es) (IATA) : 3

Hazard labels (IATA) : 3

:



AND

Transport hazard class(es) (ADN) : 3

Danger labels (AND) : 3

:



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**Chemnovo**  
DRIVEN BY CHEMISTRY, DEFINED BY PRECISION

RID

Transport hazard class(es) (RID) : 3  
Danger labels (RID) : 3



**14.4. Packing group**

Packing group (ADR) : II  
Packing group (IMDG) : II  
Packing group (IATA) : II  
Packing group (ADN) : II  
Packing group (RID) : II

**14.5. Environmental hazards**

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

**14.6. Special precautions for user**

- Overland transport

Classification code (ADR) : F1  
Special provisions (ADR) : 601  
Limited quantities (ADR) : 1I  
Excepted quantities (ADR) : E2  
Packing instructions (ADR) : P001, IBC02, R001  
Mixed packing provisions (ADR) : Mp19  
Portable tank and bulk container : T4  
instructions (ADR)

Portable tank and bulk container special  
provisions (ADR) : Tp1  
Tank code (ADR) : LGBF  
Vehicle for tank carriage : FL  
Transport category (ADR) : 2  
Special provisions for carriage - Operation  
(ADR) : S2, S20  
Hazard identification number  
(Kemler No.) : 33  
Orange plates :

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1219

Tunnel restriction code (ADR)	:	D/E
EAC code	:	•2YE
- Transport by sea		
Limited quantities (IMDG)	:	1L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
IBC packing instructions (IMDG)	:	IBC02
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	Tp1
EmS-No. (Fire)	:	F-E
EmS-No. (Spillage)	:	S-D
Stowage category (IMDG)	:	B
Flash point (IMDG)	:	12°C c.c.
Properties and observations (IMDG)	:	Colourless, mobile liquid. Flashpoint: 12°C c.c. Explosive limits: 2% to 12% Miscible with water.
MFAG-No	:	129
- Air transport		
PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y341
PCA limited quantity max net quantity (IATA)	:	1L
PCA packing instructions (IATA)	:	353
PCA max net quantity (IATA)	:	5L
CAO packing instructions (IATA)	:	364
CAO max net quantity (IATA)	:	60L
Special provisions (IATA)	:	A180
ERG code (IATA)	:	3L
- Inland waterway transport		
Classification code (ADN)	:	F1
Special provisions (ADN)	:	601
Limited quantities (ADN)	:	1L
Excepted quantities (ADN)	:	E2
Carriage permitted (ADN)	:	T
Equipment required (ADN)	:	PP, EX, A
Ventilation (ADN)	:	Ve01
Number of blue cones/lights (ADN)	:	1
- Rail transport		
Classification code (RID)	:	F1

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Special provisions (RID)	:	601
Limited quantities (RID)	:	1L
Excepted quantities (RID)	:	E2
Packing instructions (RID)	:	P001, IBC02, R001
Mixed packing provisions (RID)	:	Mp19
Portable tank and bulk container instructions (RID)	:	T4
Portable tank and bulk container special provisions (RID)	:	Tp1
Tank codes for RID tanks (RID)	:	LGBF
Transport category (RID)	:	2
Colis express (express parcels) (RID)	:	Ce7
Hazard identification number (RID)	:	33

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**15.1.1. EU-Regulations**

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

**15.1.2. National regulations**

**Germany**

Reference to AwSV	:	Water hazard class (WGK) 3, severe hazard to water (Classification according to AwSV, Annex 1)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	:	Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

**Netherlands**

SZW-lijst van kankerverwekkende stoffen	None of the components are listed
SZW-lijst van mutagene stoffen	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen -	None of the components are listed
Vruchtbaarheid	
NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling	None of the components are listed

**Denmark**

Recommendations Danish Regulation :	Young people below the age of 18 years are not allowed to use the product
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**15.2. Chemical safety assessment**

No additional information available

**SECTION 16: Other information**

Full text of H- and EUH-statements:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Ox. Sol. 1	Oxidising Solids, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour.
H271	May cause fire or explosion; strong oxidiser.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Chemnovo Synthesis Pvt Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.chemnovo.in](http://www.chemnovo.in) for additional terms and conditions of sale.

Version: 2.0  
Revision Date: 10 January 2026