



BOREM-100-HMP

1. Identification

Product identifier:	BOREM-100-HMP
Other means of identification:	Poly-naphthalene sulfonate sodium salt; Sodium salt of poly-naphthalene sulfonic acid; Sodium salt of naphthalene sulfonate polymerized with formaldehyde; Sodium salt of condensed naphthalene sulfonic acid; Sodium poly(naphthalene sulfonate); Poly-naphthalène sulfonate, sel de sodium. DISAL® (powder), DISAL® AG (powder), DISAL® OGS (powder), GYPFLOW® (powder)
Recommended use of the substance or mixture:	For industrial use only. Superplasticizer, Dispersant in concrete production, Water reducer in gypsum wallboard.
Uses advised against:	Not for use in food contact applications. Not for use in cosmetics / personal care products.
Manufacturer:	RUETGERS Polymers Ltd. 120 de l'Industrie Blvd. Candiac, Québec, Canada J5R 1J2 Telephone numbers: Canada +1 450 659-9693 USA +1 216 591-0658 Toll free +1 800 265-9693
<u>In case of emergency:</u>	CANUTEC +1 613 996-6666 (24-hour emergency telephone service. collect calls are accepted) Canada USA Toll Free number 1-888-CAN-UTEC (226-8832)

2. Hazards Identification

This product is classified and labeled according to U.S.A. OSHA Hazard Communication Standard (HCS) 29 CFR 1910.1200 (Hazcom 2012). (See Section 16 for additional information about HCS and GHS)

Classification of the substance or mixture: Combustible dust (OSHA defined hazard)

Label elements (USA Hazcom 2012):

Hazard pictogram: None

Signal word: Warning

Hazard statements: May form combustible dust concentrations in air.

Precautionary statements (USA Hazcom 2012):

General: None

Prevention: None



Response: None **Storage:** None **Disposal:** None

Additional label information:

Ingredient with unknown toxicity: Not applicable.

Other hazards which do not result in classification:

Other hazards: Dust can cause mechanical irritation of the eyes, skin and respiratory tract. May be harmful if swallowed.

3. Composition / Information on Ingredients

Ingredients

Name	CAS number	%
Sodium salt of poly-naphthalenesulfonic acid	9084-06-4	78-92
Water	7732-18-5	5-10
Sodium sulfate	7757-82-6	2-12

Occupational exposure limits, if available, are listed in section 8.

4. First Aid Measures

Description of first-aid measures

General advice: No action shall be taken involving any personal risk or without suitable training.

Eye contact: If in eyes: Do not allow victim to rub eyes. Rinse immediately with water for several minutes. Remove contact lenses, if present and easy to do, without interrupting rinsing. Have victim keep eyes open during rinsing and occasionally lift upper and lower lids. If eye irritation persists: Get medical advice/attention.

Skin contact: If on skin: Wash with plenty of water. Remove contaminated clothing and shoes. If skin irritation occurs: Get medical advice/attention. Wash clothing and shoes before reuse.

Inhalation: If inhaled: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if the person is unwell.

Ingestion: If ingested: Wash out mouth with water. Remove dentures if any. Call a POISON CENTER/doctor/physician if the person feels unwell or if large quantities have been ingested. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs naturally, position victim to prevent aspiration and rinse out mouth with water.

Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: In case of eye contact, may cause mild, transient eye irritation.



Inhalation: Exposure to airborne concentration above the statutory or recommended exposure limits may cause slight respiratory tract irritation.

Skin contact: Prolonged skin contact may cause mild, transient skin irritation.

Ingestion: May be hazardous if ingested in large quantities.

Over-exposure signs/symptoms:

Eye contact: Adverse symptoms may include the following:
Irritation, redness.

Inhalation: Adverse symptoms may include the following:
Respiratory tract irritation, coughing.

Skin contact: Prolonged skin contact may cause slight skin irritation.

Ingestion: No information available.

Indication of any immediate medical attention and special treatment needed, if necessary

Notes to physicians: Treat symptomatically. No specific antidote known. Contact a poison treatment specialist immediately if large quantities have been ingested.

Specific treatments: No specific treatment known.

5. Fire-Fighting Measures

Extinguishing media

Suitable: Use extinguishing media suitable for surrounding materials.

Unsuitable: Do not use water jet.

Specific hazards arising from the substance or mixture

Flammability classification (OSHA Hazcom 2012): Combustible dust.
(This product presents a combustible dust hazard due to its powder form. It does not meet the classification criteria for flammable solid.)

Hazardous product combustion: May produce toxic fumes of carbon oxides, sulfur oxides and sodium oxides if burning.

Special hazards: Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Avoid generating dust. The product may be combustible at high temperature.

Special protective equipment and precautions for fire-fighters

Protective equipment: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

Special fire-fighting procedures: Avoid dispersal of dust in air.



6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Non-emergency personnel should evacuate surrounding areas in case of important spill. No action shall be taken involving any personal risk or without suitable training.

For emergency personnel: If dust is generated, remove all ignition sources. Avoid dispersal of dust in air. Non-sparking tools should be used. Provide sufficient ventilation. Wear suitable protective equipment.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities according to local and regional authority requirements.

Methods and materials for containment and cleaning up:

Small spills: Vacuum or carefully scoop up material and place in an appropriate waste disposal container. Avoid creating dusty conditions. Finish cleaning by spreading water on the contaminated surface. Dispose of according to local and regional authority requirements.

Large spills: Clean up large spills with a vacuum truck. Avoid creating dusty conditions. Finish cleaning by spreading water on the contaminated surface. Dispose of according to local and regional authority requirements.

Refer to section 7 Handling and Storage for additional precautionary measures.

Refer to section 8 Exposure Controls and Personal Protection for more information on personal protective equipment. Refer to section 13 Disposal considerations for disposal information.

7. Handling and Storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Use only with appropriate ventilation. Minimize dust generation and accumulation. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Take precautionary measures against static discharges, such as electrical grounding. Put on appropriate personal protective equipment. Do not ingest. Avoid contact with skin, eyes and clothing. Do not breathe dust. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash hands, forearms and face thoroughly after handling. Wash contaminated clothing before reusing. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

Conditions for safe storage: Keep container tightly closed. Keep container in a cool, dry, well-ventilated area. Keep away from ignition sources. Store away from incompatibles. Store in accordance with local regulations.

Incompatible materials: Strong oxidizing agents, strong acids and strong bases.



8. Exposure Controls / Personal Protection

Workplace control parameters

Product / Ingredient Name	Long-term exposure limits (8 hours reference period)	Short-term exposure limits (15 minutes reference period)	Ceiling limits
Sodium salt of poly-naphthalenesulfonic acid	None established	None established	None established
Sodium sulfate	None established	None established	None established

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures:

Workplace atmosphere monitoring may be required to determine the effectiveness of the ventilation and/or the necessity to use respiratory protective equipment. Refer to national guidance documents and to monitoring standards for methods for determination of hazardous substances.

Appropriate engineering controls:

Use with adequate ventilation to control airborne levels. Use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems such as exhaust ducts, dust collectors, vessels and processing equipment are designed in a manner to prevent the escape of dust into the work area. Use only appropriately classified electrical equipment and powered industrial trucks. Refer to the ACGIH manual "Industrial Ventilation, a Manual of Recommended Practices".

Individual protection measures:

Eyes/face protection:

Safety eyewear complying with an approved standard should be worn at all times when handling chemical products.

Skin/Hand protection:

Chemical-resistant, impervious gloves or gauntlets complying with an approved standard should be worn at all times when handling chemical products.

Body protection:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection:

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If risk assessment indicates the use of a respirator is necessary, it must be properly fitted, and complying with an approved standard. Advice should be sought from respiratory protection specialists.

Other protective equipment:

Ensure that eyewash stations and safety showers are close to the workstation location.

General hygiene considerations:

Do not breathe dust. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using chemical products. Appropriate technique should be used to remove potentially contaminated clothing. Remove contaminated clothing and protective equipment before entering eating areas. Wash hands, forearms and face thoroughly after handling chemical products. Wash contaminated clothing before reusing. Handle in accordance with good industrial hygiene and safety practice.



9. Physical and Chemical Properties

Appearance:	Physical state: Solid (powder). Color: Brown.	Odor:	Slight, aromatic.
Odor threshold:	Not available.		
pH:	6 - 9 (10% solution)		
Melting/freezing point:	Not available.		
Initial boiling point and boiling range:	Not applicable.		
Flash point:	Not applicable.		
Flash point method:	Not applicable.		
Evaporation rate:	Not applicable.		
Flammability (solid, gas):	Dust deflagration index (Kst): 39 bar-m/sec (weak explosion)		
Upper/lower flammability or explosive limits:	Not applicable.		
Vapor pressure:	Not applicable.		
Vapor density:	Not applicable.		
Relative density:	0.6 – 0.8 (Water = 1)		
Solubility:	Easily soluble in cold and hot water.		
Partition coefficient n-octanol/water:	Not available.		
Auto-ignition temperature:	>588°C		
Decomposition temperature:	Not available.		
Viscosity:	Not applicable.		

10. Stability and Reactivity

Reactivity:	May react with strong oxidizing agents.
Chemical stability:	The product is stable as is, under normal conditions of temperature and pressure.
Possibility of hazardous reactions:	Under normal conditions of storage and use, no hazardous reactions will occur.
Conditions to avoid:	Avoid excessive heat. Avoid dispersal of dust in air. Avoid ignition sources.
Incompatible materials:	Strong oxidizing agents, strong acids and strong bases.
Hazardous decomposition products:	No hazardous decomposition products are anticipated as a result of normal use and storage.



11. Toxicological Information

Information on the likely routes of exposure:

Anticipated routes of entry: Ingestion, eye contact, inhalation, skin contact.

Symptoms related to the physical, chemical and toxicological characteristics:

Eye contact: Adverse symptoms may include the following:
Irritation, redness.

Inhalation: Adverse symptoms may include the following:
Respiratory tract irritation, coughing.

Skin contact: Prolonged skin contact may cause slight skin irritation.

Ingestion: No information available.

Potential acute health effects:

Eye contact: In case of eye contact, may cause mild, transient eye irritation.

Inhalation: Inhalation of dust may cause slight respiratory tract irritation.

Skin contact: Prolonged skin contact may cause mild, transient skin irritation.

Ingestion: May be hazardous if ingested in large quantities.

Potential chronic health effects:

Chronic effects: No data available.

Target organs: No data available.

Medical conditions aggravated by over-exposure: None known.

Effect of repeated exposure: No data available.

Interactive effects: Not available.

Other information: None.

Acute toxicity data:

Product / Ingredient name	Test	Result	Route	Species
DISAL®, GYPFLOW® (powder)	LD50	>2000 mg/kg and ≤5000 mg/kg*	Oral	Rat
DISAL®, GYPFLOW® (powder)	LD50	>2000 mg/kg*	Dermal	Rat

*Based on similar product

Skin corrosion or irritation: Testing of a similar product on rabbit skin caused slight skin irritation (mean score of 0.3 at 24h, 48h and 72h for erythema/eschar). This product does not meet the established regulatory classification criteria.

Serious eye damage or irritation: Testing of a similar product on rabbit eye caused slight temporary irritation, fully reversible at 48h or less (conjunctivae redness, iritis), not severe enough to result in classification according to the established regulatory criteria.

Respiratory sensitization: No data available.



- Skin sensitization:** No data available.
- Germ cell mutation:** No data available.
- Carcinogenicity:** This product contains ingredients at concentration lower than 0.1% that are listed as known, presumed or suspected carcinogens by IARC, ACGIH, NTP, EPA or OSHA. The product does not meet the established regulatory classification criteria for carcinogenicity. No adverse effects are anticipated resulting from normal workplace exposure to this product.
- Reproductive toxicity:** This product contains up to 0.5% of methanol. The State of California considers methanol to be a reproductive toxin, based on animal data. However, the reproductive toxicity observed in laboratory animals at very high concentration and prolonged exposure is not relevant to human industrial exposure. No adverse effects are anticipated resulting from normal workplace exposure to this product.
- Aspiration hazard:** No information available.
- Specific target organ toxicity:**
- Single exposure:** This product is not classifiable as a target organ toxicant (single exposure) according to the cut-off values/concentration limits triggering classification of a mixture.
- Repeated exposure:** This product does not contain ingredients that are target organ toxicant after repeated exposure.

12. Ecological Information

Ecotoxicity data

Toxicity	Test	Result	Route	Species
No data available.				

Persistence and degradability: The product is not readily biodegradable. The BOD₅ is 24000 mg/L*. The COD is 1800000 mg/L. (*Based on a similar product).

Bioaccumulative potential: Not available.

Mobility in soil: Not available.

Other adverse effects: Not available.

13. Disposal Consideration

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection, waste disposal legislation and any federal, state, regional and local authority requirements. Recycle if possible.

Disposal of empty containers: Emptied containers retain product residue. Disposal of empty containers should comply with the requirements of environmental protection, waste disposal legislation and any



federal, state, regional and local authority requirements.

Waste classification: It is the responsibility of the waste generator to determine the proper waste identification and disposal method.

Consult your local or regional authorities.
Refer to section 7 for handling precautions and to section 8 for information on personal protective equipment.

14. Transport Information

Regulatory information

	UN number	Proper shipping name	Transport Class	Packing group	Environmental hazards
DOT	Not Regulated	Not applicable	-	-	-
TDG	Not Regulated	Not applicable	-	-	-
IMDG	Not Regulated	Not applicable	-	-	-
IATA	Not Regulated	Not applicable	-	-	-

Special transportation notes: Not applicable.

Special precautions for users: Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and IBC code: Not available.

15. Regulatory Information

United States

TSCA 8(B) inventory: All ingredients are listed as active on the TSCA inventory or are exempted from listing.

California Proposition 65



WARNING: This product can expose you to chemicals including quinoline, naphthalene and formaldehyde, which are known to the State of California to cause cancer, and methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Canada

CEPA DSL: All the ingredients are on the Domestic Substance List of Environment Canada or are exempt.

16. Other Information

Other information: This product is classified as combustible dust because its fine particles have the ability



to catch fire or cause a weak explosion when mixed with air in sufficient concentration and in the presence of an ignition source.

If the product is dissolved in water for use in liquid form, the classification as combustible dust will not apply to the water solution.

The UN GHS does not contain a classification for combustible dust hazards. The combustible dust hazard was an element OSHA desired to include in its standard. As such, OSHA amended the standard definition of "hazardous chemical" to include "combustible dust" which has resulted in a hazard classification of certain polymer materials and the need to provide a hazard label. For polymer materials presenting a combustible dust hazard as shipped, a label must be applied to each package. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids, for safe handling.

OSHA has aligned the Hazard Communication System (HCS) with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). HCS 2012 is based on the GHS of United Nations but is not identical to it. Only the elements of GHS that have been explicitly adopted by OSHA legislation are included in this Safety Data Sheet. Different countries and regions may implement the GHS differently.

Date of issue: **May 9, 2022**

Key to abbreviations:	ACGIH:	American Conference of Governmental Industrial Hygienists
	BOD ₅ :	Biochemical Oxygen Demand (in 5 days).
	CAS:	Chemical Abstracts Service
	CEPA:	Canadian Environmental Protection Act
	CERHR:	Center for the Evaluation of Risks to Human Reproduction
	COD:	Chemical Oxygen Demand
	DOT:	Department of Transportation (U.S.A.)
	DSL:	Domestic Substance List (Canada)
	EPA:	Environmental Protection Agency (U.S.A.)
	GHS:	Globally Harmonized System of Classification and Labelling of Chemicals.
	HazCom:	OSHA Hazard Communication Standard (U.S.A.)
	HCS:	OSHA Hazard Communication Standard (U.S.A.)
	IARC:	International Agency for Research on Cancer



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IATA:	International Air Transport Association
IBC:	International Bulk Chemical
IMDG:	International Marine Dangerous Goods
MARPOL 73/78:	International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978. ("Marpol": Marine Pollution)
NIOSH:	National Institute for Occupational Safety and Health
NTP:	National Toxicology Program (U.S.A.)
OSHA:	Occupational Safety and Health Administration (U.S.A.)
PG:	Packing Group
ppm:	Part per million
TDG:	Transportation of Dangerous Goods (Canada)
UN:	United Nations

References:

Hazard Communication Standard 2012, U.S.A.
Hazardous Substances Databank provided by the Canadian Center for Occupational Health and Safety.
Cheminfo, Chemical Profiles created by the Canadian Center for Occupational Health and Safety.
National Institute for Occupational Safety and Health: NIOSH Pocket Guide to Chemical Hazards.
Répertoire toxicologique de la Commission de la santé et de la sécurité du travail.
National Toxicology Program, Reports on carcinogens.
International Agency for Research on Cancer, List of Carcinogens.
NTP-CERHR Monograph on the Potential Human Reproductive and Developmental Effects of Methanol.
EPA Science Inventory Effect of Prenatal Exposure to Inhaled Methanol on Nonhuman Primates and their Infant Offspring (R828112C089).

Notice to reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

****End of Safety Data Sheet****