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6 Accidental release measures Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Environmental precautions: Do not allow material to be released to the environment without proper governmental permits. Methods and material for containment and cleaning up: Pick up mechanically. Prevention of secondary hazards: No special measures required.	Wear self-contained respirator.	
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Prevention of secondary hazards: No special measures required.	Environmental precautions: Do not allow material to be released to the environment without proper governmental permits.	
	Methods and material for containment and cleaning up: Pick up mechanicany. Prevention of secondary hazards: No special measures required.	(Contra on page 2)
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Product name: Polyvinylpyrrolidone, M. W. 8000

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Reference to other sections See Section 7 for information on safe handling See Section 8 for information on personal protection equipment. See Section 13 for disposal information. Protective Action Criteria for Chemicals **PAC-1:** 51 mg/m3 **PAC-2:** 560 mg/m3 **PAC-3:** 20,000 mg/m3

7 Handling and storage

Handling Precautions for safe handling

Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Information about protection against explosions and fires: No information known.

Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles: No special requirements. Information about storage in one common storage facility: Store away from oxidizing agents. Further information about storage conditions:

Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. Additional information: No data

Exposure controls

Exposure controls Personal protective equipment General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work. Maintain an ergonomically appropriate working environment. Breathing equipment:

Maintain an ergonomically appropriate working environment. **Breathing equipment:** Use suitable respirator when high concentrations are present. Use suitable respiratory protective device in case of insufficient ventilation. **Recommended filter device for short term use:** Use a respirator with type N95 (USA) or PE (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards. **Protection of hands:** Impervise govers

Impervious gloves

Impervious gioves Check protective gloves prior to each use for their proper condition. The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer. **Penetration time of glove material (in minutes)** Not determined **Eye protection:** Safety glasses with side shields / NIOSH (US) or EN 166(EU) **Body protection:** Protective work clothing.

9 Physical and chemical properties

3 Filysical and chemical properties		
Information on basic physical and che General Information Appearance: Form: Odor: Odor: Odor threshold:	emical properties Powder Not determined Not determined.	
pH-value:	Not applicable.	
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Auto igniting:	Not determined Not determined Not determined Not determined Not determined Not determined Not determined.	
Danger of explosion: Explosion limits: Lower: Upper: Vapor pressure: Density: Relative density Vapor density Evaporation rate Solubility in / Miscibility with Water: Partition coefficient (n-octanol/water): Viscosity: dynamic: kinematic: Other information	Not determined. Not determined Not applicable. Not determined Not determined. Not determined. Not determined. Not determined. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.	
	- US	SA –

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	(Contd. of page 2)
10 Stability and reactivity Reactivity No information known. Chemical stability Stable under recommended storage of Thermal decomposition / conditions to be avoided: De Possibility of hazardous reactions Reacts with strong of Conditions to avoid No further relevant information avail Incompatible materials: Oxidizing agents Hazardous decomposition products: Carbon monoxide and carbon dioxide Nitrogen oxides	conditions. ecomposition will not occur if used and stored according to specifications. oxidizing agents iable.
11 Toxicological information Information on toxicological effects Acute toxicity: No effects known. LD/LC50 values that are relevant for classification: No Skin irritation or corrosion: May cause irritation Eye irritation or corrosion: May cause irritation Sensitization: No sensitizing effects known. Germ cell mutagenicity: No effects known. Carcinogenicity: IARC-3: Not classifiable as to carcinogenicity to humans. The Registry of Toxic Effects of Chemical Substances (R Reproductive toxicity: No effects known. Specific target organ system toxicity - repeated expose	TECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this substance.
Specific target organ system toxicity - single exposur Aspiration hazard: No effects known. Subacute to chronic toxicity: No effects known. Additional toxicological information: To the best of our	re: No effects known. r knowledge the acute and chronic toxicity of this substance is not fully known.
12 Ecological information Toxicity Aquatic toxicity: No further relevant information available Persistence and degradability No further relevant informatio Bioaccumulative potential No further relevant information Mobility in soil No further relevant information available. Additional ecological information: General notes: Do not allow material to be released to the environment w Do not allow undiluted product or large quantities to reach Avoid transfer into the environment. Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable. Other adverse effects No further relevant information available.	on available. vithout proper governmental permits. h ground water, water course or sewage system.
13 Disposal considerations Waste treatment methods Recommendation Consult state, local or national regulat Uncleaned packagings: Recommendation: Disposal must be made according to	
14 Transport information	
UN-Number DOT, ADN, IMDG, IATA	Not applicable
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Not applicable
Transport hazard class(es)	
DOT, ADR, ADN, IMDG, IATA Class	Not applicable
Packing group DOT, ADR, IMDG, IATA	Not applicable
Environmental hazards:	Not applicable.
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73	3/78 and the IBC Code Not applicable.
Transport/Additional information: DOT	
Marine Pollutant (DOT): UN "Model Regulation":	No Not applicable
15 Regulatory information Safety, health and environmental regulations/legislati GHS label elements Not applicable Hazard pictograms Not applicable Signal word Not applicable Hazard statements Not applicable National regulations All components of this product are listed in the U.S. Envin All components of this product are listed on the Canadian	ion specific for the substance or mixture ronmental Protection Agency Toxic Substances Control Act Chemical substance Inventory. Domestic Substances List (DSL).

All components of this product are listed on the Canadian Domestic Substances List (DSL). SARA Section 313 (specific toxic chemical listings) Substance is not listed.

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Product name: Polyvinylpyrrolidone, M. W. 8000

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LISA

California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified individuals. Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed. The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed. Substance is not listed.

Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. Department issuing SDS: Global Marketing Department Date of preparation/Revision: Print date, revision date and version number are in the header of each page. Abbreviations and acconyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) MDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LDSO: Lethal concentration, 50 percent PBT: Persistent, Bioaccumulative PBT: Persistent, Bioaccumulative ACGIH: American Correrece of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) MTP: National ToxicoGy Program (USA)