SAFETY DATA SHEET



Section 1. Identification

Product identifier : Preventol P 91

Material Number : 57566702

EPA Registration Number: : 39967-79

Identified uses : Not available.

Supplier/Manufacturer : LANXESS Corporation

Product Safety & Regulatory Affairs

111 RIDC Park West Drive Pittsburgh, PA 15275-1112

USA

For information: US/Canada (800) LANXESS

International +1 412 809 1000 : Chemtrec (800) 424-9300

International (703) 527-3887

Lanxess Emergency Phone (800) 410-3063.

Section 2. Hazards identification

HAZCOM Standard Status

In case of emergency

: This material is considered hazardous by the OSHA Hazard Communication Standard

(29 CFR 1910.1200).

Physical state : Liquid.
Color : Yellow.

Classification of the substance or mixture

: ACUTE TOXICITY: ORAL - Category 4

ACUTE TOXICITY: INHALATION - Category 4 SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

SKIN SENSITIZATION. - Category 1 CARCINOGENICITY - Category 1B

Hazard pictograms





Signal word : Danger

Hazard statements : Harmful if swallowed or if inhaled. Causes serious eye irritation. Causes skin irritation.

May cause an allergic skin reaction. May cause cancer.

Hazard Not Otherwise Classified (HNOC) Precautionary statements : None known.

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves and eye/face protection. Use only in a well-ventilated area. Avoid breathing vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Section 2. Hazards identification

Response

: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF SWALLOWED: Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

elements

Disposal

Supplemental label

: Store locked up.

- : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- : Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Magnesium nitrate 5-chloro-2-methyl-3(2H)-Isothiazolone	5 - 10% 1 - 3% 0.1 - 1% 0.1 - 1%	52-51-7 10377-60-3 26172-55-4 2682-20-4

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

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

Section 4. First aid measures

Description of first aid measures

Eye contact

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. If not breathing, if breathing is irregulor or respiratory arrest occurs, provide artifical respiration, or oxygen by a trained professional, using a pocket type respirator.

Skin contact

: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. In case of contact, flush skin with plenty of water for at least 20 minutes.

Ingestion

: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Potential acute health effects

Eye contact

: Causes serious eye irritation.

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Section 4. First aid measures

Inhalation : Harmful if inhaled.

Skin contactCauses skin irritation. May cause an allergic skin reaction.IngestionHarmful if swallowed. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact : Corrosive with symptoms of reddening, tearing, swelling, burning and possible

permanent damage.

Inhalation : May cause adverse respiratory effects including cough, tightness of chest and

shortness of breath.

Skin contact: Causes irritation with symptoms of reddening, itching, and swelling.

Once sensitized, an allergic skin reaction may occur with reddening, swelling, and rash

when subsequently exposed to very low levels.

Ingestion: Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhea.

Potential chronic health effects

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. Suspected of causing cancer.

Notes to physician : Treat symptomatically. No specific treatment.

Protection of first-aiders : If it is suspected that fumes are still present, the rescuer should wear an appropriate

mask or self-contained breathing apparatus.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

Unsuitable extinguishing

media

: Use an extinguishing agent suitable for the surrounding fire. In case of fire, use water

spray (fog), foam or dry chemical.

: None known.

Specific hazards arising from the chemical

Hazardous thermal decomposition products

: In a fire or if heated, a pressure increase will occur and the container may burst.

 Decomposition products may include the following materials: carbon dioxide

carbon monoxide nitrogen oxides

halogenated compounds metal oxide/oxides

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

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

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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Section 6. Accidental release measures

Methods and materials for containment and cleaning up : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. Prevent entry into sewers, water courses, basements or confined areas.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands and face before eating, drinking and smoking. Put on appropriate personal protection equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

Conditions for safe storage: Store between the following temperatures: 0 to 40°C (32 to 104°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 8. Exposure controls/personal protection

Occupational exposure limits

No exposure limit value known.

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protection

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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. A NIOSH approved air purifying respirator with organic vapor cartridges and particulate prefilter can be used to minimize exposure.

Skin protection

: Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Permeation resistant clothing and foot protection. Permeation resistant gloves.

Section 8. Exposure controls/personal protection

Eye/face protection chemical splash goggles. If contact with product is possible, wear safety glasses with

side shields.

Medical Surveillance : Not available.

Section 9. Physical and chemical properties

Physical state Liquid. Color Yellow. Odor Faint odor. **Odor threshold** Not available.

pН 3 to 4

Boiling point 100 °C (1013 hPa) : Not available. **Melting point**

Flash point Closed cup: >100°C (>212°F)

Evaporation rate Not available. **Explosion limits** : Not available. : 26 hPa (20℃) Vapor pressure 130 hPa (50°C) 162 hPa (55℃)

1.1 g/cm³ **Density** Specific gravity (Relative Not available.

density)

Solubility Partition coefficient: n-

Not available.

octanol/water

Vapor density Not available.

Viscosity Dynamic: 1,27 mPa·s

: >500°C **Ignition temperature Auto-ignition temperature** Not available.

Decomposition temperature Not available.

Section 10. Stability and reactivity

No specific test data related to reactivity available for this product or its ingredients. Reactivity

Easily soluble in the following materials: cold water

Chemical stability : The product is stable.

Possibility of hazardous

reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data. **Incompatible materials** : No specific data.

Hazardous decomposition

not be produced.

products

: Under normal conditions of storage and use, hazardous decomposition products should

Section 11. Toxicological information

Information on the likely routes of exposure

: Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Harmful if inhaled.

Skin contact : Causes skin irritation. May cause an allergic skin reaction. Ingestion : Harmful if swallowed. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

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Section 11. Toxicological information

Eye contact: Corrosive with symptoms of reddening, tearing, swelling, burning and possible

permanent damage.

Inhalation : May cause adverse respiratory effects including cough, tightness of chest and shortness

of breath.

Skin contact: Causes irritation with symptoms of reddening, itching, and swelling.

Once sensitized, an allergic skin reaction may occur with reddening, swelling, and rash

when subsequently exposed to very low levels.

Ingestion : Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhea.

Potential chronic health effects

Short term exposure

Potential immediate : Not

effects

: Not available.

Long term exposure

Potential delayed effects : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to

very low levels. Suspected of causing cancer.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.
 Teratogenicity : No known significant effects or critical hazards.
 Developmental effects : No known significant effects or critical hazards.
 Fertility effects : No known significant effects or critical hazards.

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	Test
PREVENTOL P 91	LD50 Oral	Rat	1030 mg/kg	-	-
PREVENTOL P 91	LD50 Dermal	Rat	>5000 mg/kg	-	-
PREVENTOL P 91	LC50 Inhalation Dusts and mists	Rat - Male, Female	>1 g/m³	4 hours	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation	Reversibility
2-methyl-3(2H)- Isothiazolone	Respiratory - Severe irritant	Mouse	-	-	-	

Conclusion/Summary

Skin : Severe irritant : Rabbit

Eyes : Severe irritant : Rabbit

Sensitization

Product/ingredient name	Route of exposure	Species	Result
1,3-Propanediol, 2-bromo- 2-nitro-	skin	Guinea pig	Not sensitizing
5-chloro-2-methyl-3(2H)- Isothiazolone	skin	Guinea pig	Sensitizing
2-methyl-3(2H)-Isothiazolone PREVENTOL P 91	skin skin	Mouse Guinea pig	Sensitizing Sensitizing

Chronic toxicity

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Product/ingredient name	Result	Species	Dose	Exposure
1,3-Propanediol, 2-bromo- 2-nitro-	Sub-chronic NOAEL Oral	Rat - Male, Female	25 mg/kg/d	90 days
	Chronic LOAEL Oral	Rat - Male, Female	32 mg/kg/d	104 weeks; 7 days per week
	Sub-chronic LOAEL Oral	Rat - Male, Female	20 mg/kg/d	13 weeks; 7 days per week

Mutagenicity

Product/ingredient name	Test	Experiment	Result
5-chloro-2-methyl-3(2H)- Isothiazolone	Ames test	Experiment: In vitro Subject: Bacteria Metabolic activation: +/-	Positive
	Micronucleus assay	Experiment: In vivo Subject: Mammalian-Animal	Negative
2-methyl-3(2H)-Isothiazolone	Ames test	Experiment: In vitro Subject: Bacteria	Negative
	Chromosomal aberration assay with metabolic activation	Experiment: In vitro	Negative
		Subject: Mammalian-Animal	
	Chromosomal aberration assay without metabolic activation	Experiment: In vitro	Negative
	Micronucleus test:	Subject: Mammalian-Animal Experiment: In vitro Subject: Mammalian-Animal	Negative

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
	Negative - Unreported -	Rat	-	-
2-nitro-				

Product/ingredient name	CAS#	IARC	NTP	OSHA
1,3-Propanediol, 2-bromo-2-nitro- Magnesium nitrate	52-51-7 10377-60-3	Not classified. 2A Probably carcinogenic to humans	Not classified. Not classified.	Not classified. Not classified.
5-chloro-2-methyl-3(2H)-Isothiazolone 2-methyl-3(2H)-Isothiazolone	26172-55-4 2682-20-4	Not classified. Not classified.	Not classified. Not classified.	Not classified. Not classified.

Reproductive toxicity

Product/ingredient name	Effects	Species	Dose	Exposure
5-chloro-2-methyl-3(2H)- Isothiazolone		, , , , , , , , , , , , , , , , , , , ,	Oral: 72 mg/kg NOAEL	daily

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
5-chloro-2-methyl-3(2H)- Isothiazolone	Negative - Oral		>139 mg/kg NOAEL	20 days; 9 days daily

Specific target organ toxicity (single exposure)

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Section 11. Toxicological information

Name	3.5	Route of exposure	Target organs
1,3-Propanediol, 2-bromo-2-nitro-	Category 3	• • •	Respiratory tract
2-methyl-3(2H)-Isothiazolone	Category 1		lungs

Acute toxicity estimates

Route	ATE value (Acute Toxicity Estimates)
Inhalation (vapors)	187.5 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Test	Result	Species	Exposure
PREVENTOL P 91	-	Chronic EC50 4.17 mg/l	Algae Fish - Danio rerio Daphnia - Daphnia magna	72 hours 48 hours 21 days

Conclusion/Summary

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
1,3-Propanediol, 2-bromo- 2-nitro-	OECD 302B Inherent Biodegradability: Zahn-Wellens/ EMPA Test	50 % - Inherent - 45 days	-	-

Conclusion/Summary : 10 day window not reached

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
1,3-Propanediol, 2-bromo-	-	50%; <2 day(s)	Not readily
2-nitro- 2-methyl-3(2H)-Isothiazolone	-	-	Not readily

Bioaccumulative potential

LogP _{ow}	BCF	Potential
-0.4	-	low
-0.32	-	low
-	0.4	0.4 -

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Waste disposal should be in accordance with existing federal state, provincial and or local environmental controls laws.

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^{: *}Test results on an analogous product

Section 13. Disposal considerations

RCRA classification

: If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN3082	Environmentally hazardous substance, liquid, n.o.s. (BRONOPOL)	9	III	¥2>	8, 146, 173, 335, IB3, T4, TP1, TP29The U. S. Department of Transportation regulations in 49CFR 172.102 permit this material to ship as an Environmentally Hazardous Substance, Class 9, using Special Provision 146.
IMDG Class	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BRONOPOL)	9	III	***************************************	Emergency schedules (EmS) F-A, S-F
IATA-DGR Class	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BRONOPOL)	9	III		Passenger aircraft 964: 450 L Cargo aircraft 964: 450 L

PG*: Packing group

RQ : 0 lbs

Section 15. Regulatory information

SARA 311/312 : Immediate (acute) health hazard

SARA Title III Section 302 : None

Extremely Hazardous

SARA Title III Section 313

Substances

None

Ingredient name

CAS number Concentration (%)

Magnesium nitrate

10377-60-3

1 - 3%

Toxic Chemicals Ingredient name CAS number RQ

US EPA CERCLA : Magnesium nitrate 10377-60-3
Hazardous Subtances (40

CFR 302) State regulations

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections on the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

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Section 15. Regulatory information

Ingredient name	CAS number	State Code	Concentration
			<u>(%)</u>
Magnesium nitrate	10377-60-3	MA - S, NJ - HS, PA - RTK HS	1 - 3%
Water	7732-18-5		84 - 90%
1,3-Propanediol, 2-bromo-2-nitro-	52-51-7		5 - 10%

Massachusetts Substances: MA - S

Massachusetts Extraordinary Hazardous Substances: MA - Extra HS

New Jersey Hazardous Substances: NJ - HS

Pennsylvania RTK Hazardous Substances: PA - RTK HS Pennsylvania Special Hazardous Substances: PA - Special HS

California Prop. 65

To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

U.S. Toxic Substances
Control Act

: This product is excluded from TSCA Regulation under FIFRA Section 3 (2)(B)(ii) when used as a pesticide.

FIFRA

EPA Registration Number : 39967-79

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

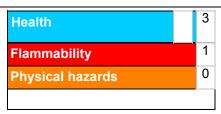
Signal word : DANGER

Hazard statements

: Corrosive . Causes irreversible eye damage and skin irritation. Harmful if swallowed or if inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Section 16. Other information

Hazardous Material Information System



0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme *=Chronic

The customer is responsible for determining the PPE code for this material. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection Association (U.S.A.)



0= Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

LANXESS' method of hazard communication is comprised of Product Labels and Safety Data Sheets. HMIS and NFPA ratings are provided by LANXESS as a customer service.

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Section 16. Other information

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Date of issue: 04-09-2015Date of previous issue: 04-09-2015

Version : 1.02

Product Safety and Regulatory Affairs

Indicates information that has changed from previously issued version.

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