

Safety Data Sheet

Agar Powder

Version: V2.0.0.1

Report No.: HGNM20BNGH

Creation Date: 2020/10/30

Revision Date: 2020/10/30

***Prepared according to American OSHA HazCom Standard (2012)**

1 Identification

Product identifier

Product Name	Agar Powder
CAS No.	9002-18-0
EC No.	232-658-1
Molecular Formula	-

Recommended use of the product and restrictions on use

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

Details of the supplier of the Safety Data Sheet

Name of the company	JMW SALES,INC.DBA DISCOVER WITH DR.COOL
Address of the company	340 A STREET, SUITE1, ASHLAND, OR 97520
Post code	—
Telephone number	+1 (541) 708-6741-107
Fax number	—
E-mail address	jhoffner@jmwsales.com

Emergency phone number

Emergency phone number	+1 800 222 1222
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2 Hazard(s) identification

Hazard classification according to GHS

Hazard classification according to GHS	Not applicable
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GHS Label elements

Hazard pictograms	Not applicable
Signal word	Not applicable

Hazard statements

Hazard statements	Not applicable
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Precautionary statements

◆ Prevention

Prevention	Not applicable
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◆ Response

Response	Not applicable
◆ Storage	
Storage	Not applicable
◆ Disposal	
Disposal	Not applicable

| Other hazards

	Not applicable.
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| Hazard description

◆ Physical and chemical hazards

	Solid, no harm in general situation.
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◆ Health hazards

Inhaled	Inhalation of the product may produce adverse health effects or irritation of the respiratory tract following discomfort.
Ingestion	Accidental ingestion of the product may be harmful to the health of the individual.
Skin Contact	No harm in general situation.
Eye	This product may cause temporary discomfort following direct contact with the eye.

◆ Environmental hazards

	Please refer to 12th chapter of SDS.
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3 Composition/information on ingredients

| Substance/mixture

	Substance
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Component	CAS No.	EC No.	Concentration (wt, %)
agar-agar	9002-18-0	232-658-1	100

4 First-aid measures

| Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Skin contact	No harm in general situation. First aid is not needed.
Ingestion	Never give anything by mouth to an unconscious person. Call a physician immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

| Most important symptoms/effects, acute and delayed

1	Please see section 11.
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Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Fire-fighting measures**Extinguishing media**

Suitable extinguishing media	Use extinguishing agent suitable for type of surrounding fire.
Unsuitable extinguishing media	No special notes.

Specific hazards arising from the substance or mixture

1	Development of hazardous combustion gases or vapor possible in the event of fire.
2	Not considered a significant fire risk, however containers may burn.

Special protective equipment and precautions for fire-fighters

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

6 Accidental release measures**Personal precautions, protective equipment and emergency procedures**

1	Ensure adequate ventilation. Remove all sources of ignition.
2	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
3	Use personal protective equipment. Avoid breathing mist or dust.

Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

1	Use clean, non-sparking tools to collect absorbed material.
2	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
3	Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7 Handling and storage**Precautions for safe handling**

1	Handling is performed in a well ventilated place.
2	Avoid contact with eyes.
3	Keep away from heat/sparks/open flames/ hot surfaces.

Conditions for safe storage, including any incompatibilities

1	Keep containers tightly closed.
2	Keep containers in a dry, cool and well-ventilated place.

3	Keep away from heat/sparks/open flames/hot surfaces.
4	Store away from incompatible materials and foodstuff containers.

8 Exposure controls/personal protection

Control parameters

Occupational Exposure limit values	No relevant regulations
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◆ Biological limit values

Biological limit values	No relevant regulations
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◆ Monitoring methods

1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2	GBZ/T 300.1~GBZ/T 300.160-2017; GBZ/T 300.161~GBZ/T 300.164-2018 Determination of toxic substances in workplace air (Series standard).

Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Set up emergency exit and necessary risk-elimination area.
4	Handle in accordance with good industrial hygiene and safety practice.

Personal protection equipment

General requirement	No special requirements, please see the description below.
Eye protection	In general situation, eye protection is not needed. In the production process, when contacting with dust, tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US).
Hand protection	In general situation, hand protection is not needed.
Respiratory protection	In general situation, respiratory protection is not needed. If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.
Skin and body protection	In general situation, skin and body protection are not needed.

9 Physical and chemical properties and safety characteristics

Physical and chemical properties

Appearance	Beige powder
Odor	Odorless
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	90
Initial boiling point and boiling range(°C)	No information available
Flash point(Closed cup,°C)	Not applicable
Evaporation rate	Not applicable

Flammability	Not flammable
Upper/lower explosive limits[%(v/v)]	Upper limit: No information available; Lower limit: No information available
Vapor pressure	Not applicable
Vapor density(Air = 1)	Not applicable
Relative density(Water=1)	No information available
Solubility	20 g/L (60°C)
n-octanol/water partition coefficient	No information available
Auto-ignition temperature(°C)	No information available
Decomposition temperature(°C)	No information available
Viscosity	Not applicable

10 Stability and reactivity

| Stability and reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.
Possibility of hazardous reactions	No information available.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	No information available.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

| Acute toxicity

Component	LD ₅₀ (oral)	LD ₅₀ (dermal)	LC ₅₀ (inhalation,4h)
agar-agar	11000mg/kg(Rat)	No information available	No information available

| Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP
agar-agar	Not Listed	Not Listed

| Others

agar-agar(Component)	
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met

Aspiration hazard	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met
Reproductive toxicity(additional)	Based on available data, the classification criteria are not met

12 Ecological information

| Acute aquatic toxicity

Acute aquatic toxicity	No information available
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| Chronic aquatic toxicity

Chronic aquatic toxicity	No information available
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| Persistence and degradability

Persistence and degradability	No information available
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| Bioaccumulative potential

Bioaccumulative potential	No information available
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| Mobility in soil

Mobility in soil	No information available
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| Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
agar-agar	not PBT/vPvB

13 Disposal considerations

| Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

14 Transport information

| Label and Mark

Transporting Label	Not applicable
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| IMDG-CODE

IMDG-CODE	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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| IATA-DGR

IATA-DGR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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| UN-ADR

UN-ADR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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15 Regulatory information

International chemical inventory

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AICS	ENCS
agar-agar	√	√	√	√	√	√	√	√	×

[EINECS]	European Inventory of Existing Commercial Chemical Substances
[TSCA]	United States Toxic Substances Control Act Inventory
[DSL]	Canadian Domestic Substances List
[IECSC]	China Inventory of Existing Chemical Substances
[NZIoC]	New Zealand Inventory of Chemicals
[PICCS]	Philippines Inventory of Chemicals and Chemical Substances
[KECI]	Existing and Evaluated Chemical Substances
[AICS]	Australia Inventory of Chemical Substances
[ENCS]	Existing And New Chemical Substances

Note:

- “√” Indicates that the substance included in the regulations.
 “x” No data or not included in the regulations.

16 Other information

Information on revision

Creation Date	2020/10/30
Revision Date	2020/10/30
Reason for revision	-

Reference

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.
- [2] IARC, website: <http://www.iarc.fr/>.
- [3] OECD: The Global Portal to Information on Chemical Substances, website: <https://www.echemportal.org/echemportal/substancesearch/index.action>.
- [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
- [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
- [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
- [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
- [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG	International Maritime Dangerous Goods
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC ₅₀	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD ₅₀	Lethal Dose 50%	NTP	National Toxicology Program
EC ₅₀	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC _x	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P _{OW}	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment

Disclaimer

This Safety Data Sheet (SDS) was prepared according to OSHA HazCom Standard (2012). The data included was

derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.



SDS

Report No. : A2240552902111002

**Company Name NORTH STAR (XIAMEN) TECHNOLOGY CO.,
shown on Report: LTD.**

**Address: NO.63, HONGXI SOUTH ROAD, XIANGAN
INDUSTRIAL ZONE, XIAMEN TORCH
HIGH-TECH PARK, XIAMEN, FUJIAN, CHINA**

Sample Name: Phenol Red Solution

Reviewed by:

Gou CuiLi

Approved by:

Chen Kaimin

Issue date:

Oct. 25, 2024



No. R683977053

Safety Data Sheet

Phenol Red Solution

Version: V2.0.1.1

Report No.: A2240552902111002

Creation Date: 2024/10/25

Revision Date: 2024/10/25

Prepared according to American OSHA HCS-2024 (29 CFR 1910.1200)*1** Identification**| Product identifier**

Product Name	Phenol Red Solution
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable

| Recommended use of the product and restrictions on use

Relevant identified uses	Used in chemistry sets.
Uses advised against	None.

| Details of the supplier and applicant of the Safety Data Sheet

Name of the supplier	JMW Sales, Inc., dba Blue Marble
Address of the supplier	101 A Street Ashland, OR 97520 USA
Post code	-
Telephone number	+1 (541) 708-6741-107
Fax number	-
E-mail address	jhoffner@jmwsales.com

Name of the applicant	North Star (Xiamen) Technology Co., Ltd.
Address of the applicant	No.63, Hongxi South Road, Xiangan Industrial Zone, Xiamen Torch High-tech Park, Xiamen, Fujian, China
Post code	361100
Telephone number	0086-592-7829518
Fax number	-
E-mail address	Michellelv@northstarxm.com

| Emergency phone number

Emergency phone number	+1800 222 1222
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2 Hazard(s) identification**| Hazard classification according to 29 CFR 1910.1200**

According to OSHA HCS-2024, not classified as a hazardous chemical.

| Label elements

Hazard pictograms	Not applicable
Signal word	Not applicable

| Hazard statements

Hazard statements	Not applicable
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| Precautionary statements

◆ Prevention

Prevention	Not applicable
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◆ Response

Response	Not applicable
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◆ Storage

Storage	Not applicable
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◆ Disposal

Disposal	Not applicable
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| Other hazards

	Not applicable.
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| Hazard description

◆ Physical and chemical hazards

	No information available
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◆ Health hazards

Inhaled	Inhalation of the product may produce adverse health effects or irritation of the respiratory tract following discomfort.
Ingestion	Accidental ingestion of the product may be harmful to the health of the individual.
Skin Contact	Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.
Eye	This product may cause temporary discomfort following direct contact with the eye.

◆ Environmental hazards

	Please refer to 12th chapter of SDS.
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3 Composition/information on ingredients

| Substance/mixture

	Mixture
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Component	CAS No.	EC No.	Concentration (Volume or weight percent, %)
Water	7732-18-5	231-791-2	99.90
Phenol red	143-74-8	205-609-7	0.10

4 First-aid measures

| Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Skin contact	No harm in general situation. First aid is not needed.
Ingestion	Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen and consult a physician immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

| Most important symptoms/effects, acute and delayed

1	Please see section 11.
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| Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Fire-fighting measures

| Extinguishing media

Suitable extinguishing media	Use extinguishing media suitable for surrounding area.
Unsuitable extinguishing media	There is no restriction on the type of extinguisher which may be used.

| Specific hazards arising from the substance or mixture

1	Development of hazardous combustion gases or vapor possible in the event of fire.
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| Special protective equipment and precautions for fire-fighters

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

6 Accidental release measures

| Personal precautions, protective equipment and emergency procedures

1	Use personal protective equipment,do not breathe gas/mist/vapour/spray.
2	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
3	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

| Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

| Methods and materials for containment and cleaning up

1	Cut off the source of the leak as much as possible.
2	Keep leaks in a ventilated place.
3	Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
4	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
5	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container.

7 Handling and storage

| Precautions for safe handling

1	Handling is performed in a well ventilated place.
2	Wear suitable protective equipment.
3	Avoid contact with skin and eyes.
4	Keep away from heat/sparks/open flames/ hot surfaces.

| Conditions for safe storage, including any incompatibilities

1	Keep containers tightly closed.
2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/hot surfaces.
4	Store away from incompatible materials and foodstuff containers.

8 Exposure controls/personal protection

| Control parameters

Occupational Exposure limit values	No relevant regulations
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| Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Set up emergency exit and necessary risk-elimination area.
4	Handle in accordance with good industrial hygiene and safety practice.

| Personal protection equipment

General requirement	No special requirements, please see the description below.
Eye protection	In general situation, eye protection is not needed. In the production process, when contacting with vapour or dust, tightly fitting safety goggles.
Hand protection	In general situation, hand protection is not needed.
Respiratory protection	In general situation, respiratory protection is not needed. If exposure limits are

	exceeded or if irritation or other symptoms are experienced, wear dust proof mask or gas defence mask.
Skin and body protection	In general situation, skin and body protection are not needed.

9 Physical and chemical properties and safety characteristics

| Physical and chemical properties

Appearance (physical state, color, etc.)	Red liquid
Odor	Odorless
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	No information available
Initial boiling point and boiling range(°C)	>35
Flash point(Closed cup,°C)	No information available
Evaporation rate	No information available
Flammability	Not flammable
Upper/lower explosive limits[% (v/v)]	Upper limit: No information available; Lower limit: No information available
Vapor pressure	No information available
Vapor density(Air = 1)	No information available
Relative density(Water=1)	No information available
Solubility	No information available
n-octanol/water partition coefficient	No information available
Auto-ignition temperature(°C)	No information available
Decomposition temperature(°C)	No information available
Viscosity	No information available

10 Stability and reactivity

| Stability and reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.
Possibility of hazardous reactions	In contact with active metals (alkali metals, Na, Ca etc.) causes a reaction and release hydrogen.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

| Acute toxicity

Acute toxicity	No information available
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| Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP	OSHA Carcinogen List
Water	Not Listed	Not Listed	Not Listed
Phenol red	Not Listed	Not Listed	Not Listed

| Others

Phenol Red Solution	
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met

12 Ecological information

| Acute aquatic toxicity

Acute aquatic toxicity	No information available
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| Chronic aquatic toxicity

Chronic aquatic toxicity	No information available
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| Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
Phenol red	High	High

| Bioaccumulative potential

Component	Bioaccumulative potential	Comments
Phenol red	Low	Log Kow=3.02

| Mobility in soil

Component	Mobility in soil	Soil Organic Carbon-Water Partitioning Coefficient (Koc)
Phenol red	Low	1170000

13 Disposal considerations

| Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

14 Transport information

| Label

Transporting Label	Not applicable
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| US DOT (49CFR)

49CFR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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| IMDG-CODE

IMDG-CODE	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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| ICAO/IATA-DGR

IATA-DGR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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| UN-ADR

UN-ADR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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| Transport in bulk according to IMO instruments

- ◆ Transport in bulk according to Annex II of MARPOL and the IBC code

	No information available
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- ◆ Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

	No information available
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- ◆ Transport in bulk in accordance with the IGC Code

	No information available
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| Others

Precautions for transport	Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.
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15 Regulatory information

| International chemical inventory

Component	EC inventory	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AIICS	ENCS
Water	√	√	√	√	√	√	√	√	√
Phenol red	√	√	√	√	√	√	√	√	√

[EC inventory]	European Inventory of Existing Commercial Chemical Substances
[TSCA]	United States Toxic Substances Control Act Inventory
[DSL]	Canadian Domestic Substances List
[IECSC]	China Inventory of Existing Chemical Substances
[NZIoC]	New Zealand Inventory of Chemicals
[PICCS]	Philippines Inventory of Chemicals and Chemical Substances
[KECI]	Korea Existing Chemicals Inventory
[AIICS]	Australian. Inventory of Industrial Chemical (AIICS)
[ENCS]	Japan Inventory of Existing & New Chemical Substances

| US chemical inventory

Component	A	B	C	D	E	F	G	H
Water	x	x	x	x	x	x	x	x
Phenol red	x	x	x	x	x	x	x	x

[A]	US Clean Air Act (CAA)- Section 112, Hazardous Air Pollutants
[B]	US SARA 302- Extremely Hazardous Substance List
[C]	US CERCLA- Hazardous Substances List
[D]	US Massachusetts Right-to-Know Substance List
[E]	US New Jersey Right to Know Hazardous Substance List
[F]	US Pennsylvania Right to Know Hazardous Substance List
[G]	US New York City Right-to-Know Hazardous Substance List
[H]	US California Proposition 65 List

Note:

- “√” Indicates that the substance included in the regulations.
- “x” No data or not included in the regulations.

16 Other information

| Information on revision

Creation Date	2024/10/25
Revision Date	2024/10/25
Reason for revision	-

| Reference

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.
- [2] IARC, website: <http://www.iarc.fr/>.
- [3] OECD: The Global Portal to Information on Chemical Substances, website: <https://www.echemportal.org/echemportal/>.
- [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
- [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
- [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
- [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
- [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

| Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG-CODE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC ₅₀	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD ₅₀	Lethal Dose 50%	NTP	National Toxicology Program
EC ₅₀	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC _x	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P _{ow}	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor	HCS	Hazard Communication Standard

| Disclaimer

This Safety Data Sheet (SDS) was prepared according to OSHA HCS-2024. The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

| Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product. The information of section 3 and section 9 is provided by the company listed in section 1. Other information is from authoritative database and expert assessment.

1. This file is considered invalidated without the Special Seal for Inspection of CTI.
2. This file shall not be altered, increased or deleted.
3. Without written approval of CTI, this file shall not be copied partly or published as advertisement.
4. The file and the data must not be used in legal affairs, according to the agreement with CTI and the Applicant.

End of File

Safety Data Sheet

Sodium Alginate Solution

Version : V2.0.1.2

Report No. : HGBZ2411YK12

Creation Date : 2024/11/28

Revision Date : 2025/04/08



*Prepared according to American OSHA HCS-2024 (29 CFR 1910.1200)

1 Identification

Product identifier

Product Name	Sodium Alginate Solution
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable

Recommended use of the product and restrictions on use

Relevant identified uses	Used in chemistry set and science experimental set.
Uses advised against	Please consult manufacturer.

Details of the supplier of the Safety Data Sheet

Applicant Name	North Star (Xiamen) Technology Co., Ltd.
Applicant Address	No.63, Hongxi South Road, Xiangan Industrial Zone, Xiamen Torch High-tech Park, Xiamen, Fujian, China
Applicant Post Code	361100
Applicant Telephone	0086-592-7829518
Applicant Fax	-
Applicant E-mail	michellelv@northstarxm.com
Supplier Name	JMW Sales, Inc., dba Blue Marble
Supplier Address	101 A Street Ashland, OR 97520 USA
Supplier Post Code	—
Supplier Telephone	+1 (541) 708-6741-107
Supplier Fax	—
Supplier E-mail	jhoffner@jmwsales.com

Emergency phone number

Emergency phone number	+1 800 222 1222
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2 Hazard(s) identification

Hazard classification according to 29 CFR 1910.1200

According to OSHA HCS-2024, not classified as a hazardous chemical.

Label elements

Hazard pictograms	Not applicable
Signal word	Not applicable

Hazard statements



Hazard statements	Not applicable
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Precautionary statements

◆ Prevention

Prevention	Not applicable
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◆ Response

Response	Not applicable
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◆ Storage

Storage	Not applicable
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◆ Disposal

Disposal	Not applicable
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Other hazards

	Not applicable.
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Hazard description

◆ Physical and chemical hazards

	No information available
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◆ Health hazards

Inhaled	Inhalation of the product may produce adverse health effects or irritation of the respiratory tract following discomfort.
Ingestion	Accidental ingestion of the product may be harmful to the health of the individual.
Skin Contact	Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.
Eye	This product may cause temporary discomfort following direct contact with the eye.

◆ Environmental hazards

	Please refer to 12th chapter of SDS.
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3 Composition/information on ingredients

Substance/mixture

	Mixture
--	---------

Component	CAS No.	EC No.	Concentration (Volume or weight percent, %)
Color-changing Sodium Alginate Solution			
Water	7732-18-5	231-791-2	97.247
Sodium alginate	9005-38-3	618-415-6	2
Methyl 4-Hydroxybenzoate	99-76-3	202-785-7	0.28
Ethyl 4-Hydroxybenzoate	120-47-8	204-399-4	0.28
Phenoxyethanol	122-99-6	204-589-7	0.14
Methyl stearate	112-61-8	203-990-4	0.04
Butyl stearate	123-95-5	204-666-5	0.008
3-[4-(diethylamino)phenyl]-3-(1-ethyl-2-methyl-1H-in	75805-17-3	278-318-6	0.005

dol-3-yl)phthalide			
Green SODIUM ALGINATE SOLUTION			
Water	7732-18-5	231-791-2	97.25
Sodium alginate	9005-38-3	618-415-6	2
Methyl 4-Hydroxybenzoate	99-76-3	202-785-7	0.28
Ethyl 4-Hydroxybenzoate	120-47-8	204-399-4	0.28
Phenoxyethanol	122-99-6	204-589-7	0.14
Tartrazine	1934-21-0	217-699-5	0.03
Brilliant blue	3844-45-9	223-339-8	0.02
RED SODIUM ALGINATE SOLUTION			
Water	7732-18-5	231-791-2	97.25
Sodium alginate	9005-38-3	618-415-6	2
Methyl 4-Hydroxybenzoate	99-76-3	202-785-7	0.28
Ethyl 4-Hydroxybenzoate	120-47-8	204-399-4	0.28
Phenoxyethanol	122-99-6	204-589-7	0.14
Carmine	1390-65-4	215-724-4	0.05
White SODIUM ALGINATE SOLUTION			
Water	7732-18-5	231-791-2	97.26
Sodium alginate	9005-38-3	618-415-6	2
Methyl 4-Hydroxybenzoate	99-76-3	202-785-7	0.28
Ethyl 4-Hydroxybenzoate	120-47-8	204-399-4	0.28
Phenoxyethanol	122-99-6	204-589-7	0.14
Titanium Dioxide	13463-67-7	236-675-5	0.04

4 First-aid measures

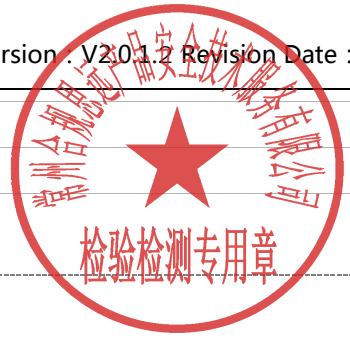
Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Skin contact	No harm in general situation. First aid is not needed.
Ingestion	Never give anything by mouth to an unconscious person. Call a physician immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen and consult a physician immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

Most important symptoms/effects, acute and delayed

1 Please see section 11.

Indication of any immediate medical attention and special treatment needed



- | | |
|---|--------------------------|
| 1 | Treat symptomatically. |
| 2 | Symptoms may be delayed. |

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Use extinguishing media suitable for surrounding area.
Unsuitable extinguishing media	There is no restriction on the type of extinguisher which may be used.

Specific hazards arising from the substance or mixture

- | | |
|---|-----------------------------------------------------------------------------------|
| 1 | Development of hazardous combustion gases or vapor possible in the event of fire. |
| 2 | Not considered a significant fire risk, however containers may burn. |

Special protective equipment and precautions for fire-fighters

- | | |
|---|------------------------------------------------------------------------------------------------------------------------|
| 1 | As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear. |
| 2 | Fight fire from a safe distance, with adequate cover. |
| 3 | Prevent fire extinguishing water from contaminating surface water or the ground water system. |

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

- | | |
|---|---------------------------------------------------------------------------------------------------------------------|
| 1 | Use personal protective equipment, do not breathe gas/mist/vapour/spray. |
| 2 | Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges. |
| 3 | Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |

Environmental precautions

- | | |
|---|-------------------------------------------------------|
| 1 | Prevent further leakage or spillage if safe to do so. |
| 2 | Discharge into the environment must be avoided. |

Methods and materials for containment and cleaning up

- | | |
|---|-----------------------------------------------------------------------------------------------------------------------------|
| 1 | Cut off the source of the leak as much as possible. |
| 2 | Keep leaks in a ventilated place. |
| 3 | Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding. |
| 4 | Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. |
| 5 | Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container. |

7 Handling and storage

Precautions for safe handling

- | | |
|---|-------------------------------------------------------|
| 1 | Handling is performed in a well ventilated place. |
| 2 | Wear suitable protective equipment. |
| 3 | Avoid contact with skin and eyes. |
| 4 | Keep away from heat/sparks/open flames/ hot surfaces. |

Conditions for safe storage, including any incompatibilities



- | | |
|---|------------------------------------------------------------------|
| 1 | Keep containers tightly closed. |
| 2 | Keep containers in a dry, cool and well-ventilated place. |
| 3 | Keep away from heat/sparks/open flames/hot surfaces. |
| 4 | Store away from incompatible materials and foodstuff containers. |

8 Exposure controls/personal protection

Control parameters

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m ³	ppm	mg/m ³
Phenoxyethanol	Canada - Ontario	25	141	-	-
	Germany (AGS)	1	5.7	1	5.7
	Austria	20	110	20	110
	Finland	20	110	50	290
	Germany (DFG)	1	5.7	1	5.7
	Poland	-	230	-	-
Titanium Dioxide	Australia	-	10	-	-
	Canada - Ontario	-	10	-	-
	Canada - Québec	-	10	-	-
	France	-	11 (inhalable aerosol)	-	-
	New Zealand	-	10	-	-
	South Korea	-	10	-	-

Engineering controls

- | | |
|---|----------------------------------------------------------------------------------------|
| 1 | Ensure adequate ventilation, especially in confined areas. |
| 2 | Ensure that eyewash stations and safety showers are close to the workstation location. |
| 3 | Use explosion-proof electrical/ventilating/lighting/equipment. |
| 4 | Set up emergency exit and necessary risk-elimination area. |

Personal protection equipment

General requirement	No special requirements, please see the description below.
Eye protection	In general situation, eye protection is not needed. In the production process, when contacting with vapour or dust, tightly fitting safety goggles.
Hand protection	In general situation, hand protection is not needed.
Respiratory protection	In general situation, respiratory protection is not needed. If exposure limits are exceeded or if irritation or other symptoms are experienced, wear dust proof mask or gas defence mask.
Skin and body protection	In general situation, skin and body protection are not needed.

9 Physical and chemical properties and safety characteristics

Physical and chemical properties

Appearance (physical state)	White, green, red, pink liquid
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color, etc.)	
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	No information available
Initial boiling point and boiling range(°C)	No information available
Flash point(Closed cup, °C)	No information available
Evaporation rate	No information available
Flammability	No information available
Upper/lower explosive limits[%(v/v)]	Upper limit : No information available ; Lower limit : No information available
Vapor pressure	No information available
Vapor density(Air = 1)	No information available
Relative density(Water=1)	No information available
Solubility	No information available
n-octanol/water partition coefficient	No information available
Auto-ignition temperature(°C)	No information available
Decomposition temperature(°C)	No information available
Viscosity	No information available



10 Stability and reactivity

| Stability and reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.
Possibility of hazardous reactions	In contact with active metals (alkali metals, Na, Ca etc.) causes a reaction and release hydrogen.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

| Acute toxicity

Component	LD ₅₀ (oral)	LD ₅₀ (dermal)	LC ₅₀ (inhalation,4h)
Ethyl 4-Hydroxybenzoate	3000mg/kg(Mouse)	No information available	No information available
Tartrazine	12750mg/kg(Mouse)	No information available	No information available
Sodium alginate	> 5000mg/kg(Rat)	No information available	No information available
Methyl 4-Hydroxybenzoate	> 8000mg/kg(Mouse)	No information available	No information available

Butyl stearate	32000mg/kg(Rat)	No information available	No information available
Phenoxyethanol	1260mg/kg(Rat)	5510mg/kg(Rabbit)	No information available



Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP	OSHA Carcinogen List
Water	Not Listed	Not Listed	Not Listed
Sodium alginate	Not Listed	Not Listed	Not Listed
Methyl 4-Hydroxybenzoate	Not Listed	Not Listed	Not Listed
Ethyl 4-Hydroxybenzoate	Not Listed	Not Listed	Not Listed
Phenoxyethanol	Not Listed	Not Listed	Not Listed
Methyl stearate	Not Listed	Not Listed	Not Listed
Butyl stearate	Not Listed	Not Listed	Not Listed
3-[4-(diethylamino)phenyl]-3-(1-ethyl-2-methyl-1H-indol-3-yl)phthalide	Not Listed	Not Listed	Not Listed
Tartrazine	Not Listed	Not Listed	Not Listed
Brilliant blue	Category 3	Not Listed	Not Listed
Carmines	Not Listed	Not Listed	Not Listed
Titanium Dioxide	Category 2B	Not Listed	Not Listed

Others

Sodium Alginate Solution	
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met

12 Ecological information

Acute aquatic toxicity

Component	Fish	Crustaceans	Algae
Ethyl 4-Hydroxybenzoate	LC ₅₀ : 15mg/L (96h)(Fresh water fish)	No information available	No information available
Tartrazine	LC ₅₀ : > 120mg/L (96h)(Fresh water fish)	EC ₅₀ : > 125mg/L (48h)(Daphnia magna)	No information available
Methyl 4-Hydroxybenzoate	LC ₅₀ : 59.5mg/L (96h)(Fresh water fish)	EC ₅₀ : 36mg/L (48h)(Daphnia magna)	ErC ₅₀ : 56mg/L (72h)(Pseudokirchneriella)

			subcapitata)
Methyl stearate	No information available	EC ₅₀ : > 0.02mg/L (48h)(Daphnia magna)	ErC ₅₀ > 0.023mg/L (72h)(Pseudokirchneriella subcapitata)
Phenoxyethanol	LC ₅₀ : 344mg/L (96h)(Fresh water fish)	No information available	No information available
Carmine	No information available	EC ₅₀ : > 6.3mg/L (48h)(Daphnia magna)	ErC ₅₀ : 7.5mg/L (72h)(Freshwater algae)

Chronic aquatic toxicity

Component	Fish	Crustaceans	Algae
Methyl 4-Hydroxybenzoate	No information available	NOEC :0.20mg/L(Daphnia magna)	NOEC : 17mg/L(Pseudokirchneriella subcapitata)

Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
Methyl 4-Hydroxybenzoate	Low	Low
Ethyl 4-Hydroxybenzoate	Low	Low
Phenoxyethanol	Low	Low
Methyl stearate	Low	Low
Butyl stearate	Low	Low
Tartrazine	High	High
Carmine	Low	Low
Titanium Dioxide	High	High

Bioaccumulative potential

Component	Bioaccumulative potential	Comments
Methyl 4-Hydroxybenzoate	Low	Log Kow=1.96
Ethyl 4-Hydroxybenzoate	Low	Log Kow=2.47
Phenoxyethanol	Low	Log Kow=1.2
Methyl stearate	Low	Log Kow=8.35
Butyl stearate	Low	Log Kow=9.704
Tartrazine	Low	BCF=3
Carmine	Low	Log Kow=0.9721
Titanium Dioxide	Low	BCF=10

Mobility in soil

Component	Mobility in soil	Soil Organic Carbon-Water Partitioning Coefficient (Koc)
Methyl 4-Hydroxybenzoate	Low	125.6

Ethyl 4-Hydroxybenzoate	Low	-231.6
Phenoxyethanol	Low	12.12
Methyl stearate	Low	62440
Butyl stearate	Low	391800
Tartrazine	Low	79.38
Carmine	Low	10
Titanium Dioxide	Low	23.74

13 Disposal considerations

Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

14 Transport information

Label

Transporting Label	Not applicable
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US DOT (49CFR)

49CFR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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IMDG-CODE

IMDG-CODE	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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ICAO/IATA-DGR

IATA-DGR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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UN-ADR

UN-ADR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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Transport in bulk according to IMO instruments

- ◆ Transport in bulk according to Annex II of MARPOL and the IBC code

	No information available
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- ◆ Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

	No information available
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- ◆ Transport in bulk in accordance with the IGC Code

	No information available
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Others

Precautions for transport	Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant
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transporting requirements.

15 Regulatory information**| International chemical inventory**

Component	EC inventory	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AIICS	ENCS
Water	√	√	√	√	√	√	√	√	√
Sodium alginate	×	√	√	√	√	√	√	√	√
Methyl 4-Hydroxybenzoate	√	√	√	√	√	√	√	√	√
Ethyl 4-Hydroxybenzoate	√	√	√	√	√	√	√	√	√
Phenoxyethanol	√	√	√	√	√	√	√	√	√
Methyl stearate	√	√	√	√	√	√	√	√	√
Butyl stearate	√	√	√	√	√	√	√	√	√
3-[4-(diethylamino)phenyl]-3-(1-ethyl-2-methyl-1H-indol-3-yl)phthalide	√	√	×	×	×	×	×	×	√
Tartrazine	√	√	√	√	√	√	√	√	√
Brilliant blue	√	√	√	√	√	√	√	√	√
Carmine	√	×	√	√	√	√	√	√	×
Titanium Dioxide	√	√	√	√	√	√	√	√	√

[EC inventory] European Inventory of Existing Commercial Chemical Substances

[TSCA] United States Toxic Substances Control Act Inventory

[DSL] Canadian Domestic Substances List

[IECSC] China Inventory of Existing Chemical Substances

[NZIoC] New Zealand Inventory of Chemicals

[PICCS] Philippines Inventory of Chemicals and Chemical Substances

[KECI] Korea Existing Chemicals Inventory

[AIICS] Australian Inventory of Industrial Chemical (AIICS)

[ENCS] Japan Inventory of Existing & New Chemical Substances

| US chemical inventory

Component	A	B	C	D	E	F	G	H
Water	×	×	×	×	×	×	×	×
Sodium alginate	×	×	×	×	×	×	×	×
Methyl 4-Hydroxybenzoate	×	×	×	×	×	×	×	×
Ethyl 4-Hydroxybenzoate	×	×	×	×	×	×	×	×
Phenoxyethanol	×	×	×	×	×	×	×	×
Methyl stearate	×	×	×	×	×	×	×	×
Butyl stearate	×	×	×	×	×	×	×	×
3-[4-(diethylamino)phenyl]-3-(1-ethyl-2-methyl-1H-indol-3-yl)phthalide	×	×	×	×	×	×	×	×
Tartrazine	×	×	×	×	×	×	×	×

Brilliant blue	x	x	x	√	x		
Carmine	x	x	x	x	x		
Titanium Dioxide	x	x	x	√	√		x

- [A] US Clean Air Act (CAA)- Section 112, Hazardous Air Pollutants
 [B] US SARA 302- Extremely Hazardous Substance List
 [C] US CERCLA- Hazardous Substances List
 [D] US Massachusetts Right-to-Know Substance List
 [E] US New Jersey Right to Know Hazardous Substance List
 [F] US Pennsylvania Right to Know Hazardous Substance List
 [G] US New York City Right-to-Know Hazardous Substance List
 [H] US California Proposition 65 List

Note:

- “√” Indicates that the substance included in the regulations.
 “x” No data or not included in the regulations.

16 Other information

Information on revision

Creation Date	2024/11/28
Revision Date	-
Reason for revision	-

Reference

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.
 [2] IARC, website: <http://www.iarc.fr/>.
 [3] OECD: The Global Portal to Information on Chemical Substances, website: <https://www.echemportal.org/echemportal/>.
 [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
 [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
 [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
 [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
 [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG-CODE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC ₅₀	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD ₅₀	Lethal Dose 50%	NTP	National Toxicology Program
EC ₅₀	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC _x	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P _{OW}	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor	HCS	Hazard Communication Standard

Disclaimer

This Safety Data Sheet (SDS) was prepared according to OSHA HCS-2024. The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should

make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.



Safety Data Sheet

Food coloring(red,yellow,blue,green)

Version: V2.0.0.1

Report No.: HGNM20J7KC

Creation Date: 2020/10/09

Revision Date: 2020/10/09

***Prepared according to American OSHA HazCom Standard (2012)**

1 Identification

Product identifier

Product Name	Food coloring(red,yellow,blue,green)
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable

Recommended use of the product and restrictions on use

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

Details of the supplier of the Safety Data Sheet

Name of the company	JMW SALES,INC.DBA DISCOVER WITH DR.COOL
Address of the company	340 A STREET, SUITE1, ASHLAND, OR 97520
Post code	—
Telephone number	+1 (541) 708-6741-107
Fax number	—
E-mail address	jhoffner@jmwsales.com

Emergency phone number

Emergency phone number	+1 800 222 1222
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2 Hazard(s) identification

Hazard classification according to GHS

Hazard classification according to GHS	Not applicable
----------------------------------------	----------------

GHS Label elements

Hazard pictograms	Not applicable
Signal word	Not applicable

Hazard statements

Hazard statements	Not applicable
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Precautionary statements

◆ Prevention

Prevention	Not applicable
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◆ Response

Response	Not applicable
◆ Storage	
Storage	Not applicable
◆ Disposal	
Disposal	Not applicable

| Other hazards

	Not applicable.
--	-----------------

| Hazard description

◆ Physical and chemical hazards

	Various liquids, soluble in water, no harm in general situation.
--	------------------------------------------------------------------

◆ Health hazards

Inhaled	Inhalation of the product may produce adverse health effects or irritation of the respiratory tract following discomfort.
Ingestion	No harm in general situation.
Skin Contact	No harm in general situation.
Eye	This product may cause temporary discomfort following direct contact with the eye.

◆ Environmental hazards

	Please refer to 12th chapter of SDS.
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3 Composition/information on ingredients

| Substance/mixture

	Mixture
--	---------

Component	CAS No.	EC No.	Concentration (wt, %)
Red			
Water (H ₂ O)	7732-18-5	231-791-2	83
Carmine	1390-65-4	215-724-4	17
Yellow			
Water (H ₂ O)	7732-18-5	231-791-2	90
Sodium Chloride	7647-14-5	231-598-3	8
Tartrazine	1934-21-0	217-699-5	2
Blue			
Water (H ₂ O)	7732-18-5	231-791-2	90
Sodium Chloride	7647-14-5	231-598-3	8
Brilliant blue	3844-45-9	223-339-8	2
Green			
Water (H ₂ O)	7732-18-5	231-791-2	91
Tartrazine	1934-21-0	217-699-5	7

Brilliant blue	3844-45-9	223-339-8	2
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4 First-aid measures

Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Skin contact	No harm in general situation. First aid is not needed.
Ingestion	No harm in general situation. First aid is not needed.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen and consult a physician immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

Most important symptoms/effects, acute and delayed

1	Please see section 11.
---	------------------------

Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Use extinguishing agent suitable for type of surrounding fire.
Unsuitable extinguishing media	No special notes.

Specific hazards arising from the substance or mixture

1	Development of hazardous combustion gases or vapor possible in the event of fire.
2	Not combustible, not considered a significant fire risk, however containers may burn.

Special protective equipment and precautions for fire-fighters

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

1	Use personal protective equipment,do not breathe gas/mist/vapour/spray.
2	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
3	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
---	-------------------------------------------------------

- | | |
|---|-------------------------------------------------|
| 2 | Discharge into the environment must be avoided. |
|---|-------------------------------------------------|

Methods and materials for containment and cleaning up

- | | |
|---|--------------------------------------------------------------------------------------------------------------------------|
| 1 | Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding. |
| 2 | Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations. |
| 3 | Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. |

7 Handling and storage

Precautions for safe handling

- | | |
|---|-------------------------------------------------------|
| 1 | Handling is performed in a well ventilated place. |
| 2 | Avoid contact with eyes. |
| 3 | Keep away from heat/sparks/open flames/ hot surfaces. |

Conditions for safe storage, including any incompatibilities

- | | |
|---|------------------------------------------------------------------|
| 1 | Keep containers tightly closed. |
| 2 | Keep containers in a dry, cool and well-ventilated place. |
| 3 | Keep away from heat/sparks/open flames/hot surfaces. |
| 4 | Store away from incompatible materials and foodstuff containers. |

8 Exposure controls/personal protection

Control parameters

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m ³	ppm	mg/m ³
Sodium Chloride	Latvia	-	5	-	-

◆ Biological limit values

Biological limit values	No relevant regulations
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◆ Monitoring methods

- | | |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. |
| 2 | GBZ/T 300.1~GBZ/T 300.160-2017; GBZ/T 300.161~GBZ/T 300.164-2018 Determination of toxic substances in workplace air (Series standard). |

Engineering controls

- | | |
|---|----------------------------------------------------------------------------------------|
| 1 | Ensure adequate ventilation, especially in confined areas. |
| 2 | Ensure that eyewash stations and safety showers are close to the workstation location. |
| 3 | Set up emergency exit and necessary risk-elimination area. |
| 4 | Handle in accordance with good industrial hygiene and safety practice. |

Personal protection equipment

General requirement	No special requirements, please see the description below.
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Eye protection	In general situation, eye protection is not needed. In the production process, when contacting with vapour, tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US)).
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Hand protection	In general situation, hand protection is not needed.
Respiratory protection	In general situation, respiratory protection is not needed. If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.
Skin and body protection	In general situation, skin and body protection are not needed.

9 Physical and chemical properties and safety characteristics

Physical and chemical properties

Appearance	Various liquids
Odor	No special odor
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	No information available
Initial boiling point and boiling range(°C)	>35
Flash point(Closed cup,°C)	Not combustible
Evaporation rate	No information available
Flammability	Not combustible
Upper/lower explosive limits[%(v/v)]	Upper limit: Not combustible; Lower limit: Not combustible
Vapor pressure	No information available
Vapor density(Air = 1)	No information available
Relative density(Water=1)	No information available
Solubility	Miscible with water
n-octanol/water partition coefficient	No information available
Auto-ignition temperature(°C)	Not combustible
Decomposition temperature(°C)	No information available
Viscosity	No information available

10 Stability and reactivity

Stability and reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.
Possibility of hazardous reactions	In contact with active metals (alkali metals, Na, Ca etc.) causes a reaction and release hydrogen. In contact with organic peroxides cause a fire immediately.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide. Organic peroxides.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information**| Acute toxicity**

Component	LD ₅₀ (oral)	LD ₅₀ (dermal)	LC ₅₀ (inhalation,4h)
Tartrazine	12750mg/kg(Mouse)	No information available	No information available
Sodium Chloride	3000mg/kg(Rat)	> 10000mg/kg(Rabbit)	No information available

| Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP
Water (H ₂ O)	Not Listed	Not Listed
Carmine	Not Listed	Not Listed
Sodium Chloride	Not Listed	Not Listed
Tartrazine	Not Listed	Not Listed
Brilliant blue	Category 3	Not Listed

| Others

Food coloring(red,yellow,blue,green)	
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met
Reproductive toxicity(additional)	Based on available data, the classification criteria are not met

12 Ecological information**| Acute aquatic toxicity**

Component	Fish	Crustaceans	Algae
Sodium Chloride	LC ₅₀ : 7400mg/L (96h)(Fish)	EC ₅₀ : 2120mg/L (48h)(Crustaceans)	No information available

| Chronic aquatic toxicity

Chronic aquatic toxicity	No information available
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| Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
Water (H ₂ O)	Low	Low
Carmine	Low	Low

Sodium Chloride	Low	Low
Tartrazine	High	High

| Bioaccumulative potential

Component	Bioaccumulative potential	Comments
Water (H₂O)	Low	Log Kow=-1.38
Carmines	Low	Log Kow=0.9721
Sodium Chloride	Low	Log Kow=0.5392
Tartrazine	Low	BCF=3

| Mobility in soil

Component	Mobility in soil	Soil Organic Carbon-Water Partitioning Coefficient (Koc)
Water (H₂O)	Low	14.3
Carmines	Low	10
Sodium Chloride	Low	14.3
Tartrazine	Low	79.38

| Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Water (H₂O)	not PBT/vPvB
Carmines	not PBT/vPvB
Sodium Chloride	not PBT/vPvB
Tartrazine	not PBT/vPvB
Brilliant blue	not PBT/vPvB

13 Disposal considerations

| Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

14 Transport information

| Label and Mark

Transporting Label	Not applicable
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| IMDG-CODE

IMDG-CODE	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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| IATA-DGR

IATA-DGR | NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

| UN-ADR

UN-ADR | NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

15 Regulatory information

| International chemical inventory

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AICS	ENCS
Water (H ₂ O)	√	√	√	√	√	√	√	√	√
Carmine	√	×	√	√	√	√	√	√	×
Sodium Chloride	√	√	√	√	√	√	√	√	√
Tartrazine	√	√	√	√	√	√	√	√	√
Brilliant blue	√	√	√	√	√	√	√	√	√

[EINECS]	European Inventory of Existing Commercial Chemical Substances
[TSCA]	United States Toxic Substances Control Act Inventory
[DSL]	Canadian Domestic Substances List
[IECSC]	China Inventory of Existing Chemical Substances
[NZIoC]	New Zealand Inventory of Chemicals
[PICCS]	Philippines Inventory of Chemicals and Chemical Substances
[KECI]	Existing and Evaluated Chemical Substances
[AICS]	Australia Inventory of Chemical Substances
[ENCS]	Existing And New Chemical Substances

Note:

- “√” Indicates that the substance included in the regulations.
“×” No data or not included in the regulations.

16 Other information

| Information on revision

Creation Date	2020/10/09
Revision Date	2020/10/09
Reason for revision	-

| Reference

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.
- [2] IARC, website: <http://www.iarc.fr/>.
- [3] OECD: The Global Portal to Information on Chemical Substances, website: <https://www.echemportal.org/echemportal/substancesearch/index.action>.
- [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
- [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
- [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
- [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
- [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

| Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG	International Maritime Dangerous Goods
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer

DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC ₅₀	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD ₅₀	Lethal Dose 50%	NTP	National Toxicology Program
EC ₅₀	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC _x	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P _{OW}	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment

Disclaimer

This Safety Data Sheet (SDS) was prepared according to OSHA HazCom Standard (2012). The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

Safety Data Sheet

National Geographic Zinc Sulfide

Version : V2.0.0.1

Report No. : HGBZ2309IXO1

Creation Date : 2023/09/14

Revision Date : 2023/09/14

***Prepared according to American OSHA HCS-2012 (29 CFR 1910.1200)**

1 Identification

Product identifier

Product Name	National Geographic Zinc Sulfide
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable

Recommended use of the product and restrictions on use

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

Details of the supplier of the Safety Data Sheet

Applicant Name	North Star (Xiamen) Technology Co., Ltd.
Applicant Address	No.63, Hongxi South Road, Xiangan Industrial Zone, Xiamen Torch High-tech Park, Xiamen, Fujian, China
Applicant Post Code	361100
Applicant Telephone	0086-592-7829518
Applicant Fax	-
Applicant E-mail	michellelv@northstarxm.com
Supplier Name	JMW Sales, Inc., dba Blue Marble
Supplier Address	101 A Street Ashland, OR 97520 USA
Supplier Post Code	—
Supplier Telephone	+1 (541) 708-6741-107
Supplier Fax	—
Supplier E-mail	jhoffner@jmwsales.com

Emergency phone number

Emergency phone number	+1 800 222 1222
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2 Hazard(s) identification

Hazard classification according to 29 CFR 1910.1200

According to OSHA HCS-2012, not classified as a hazardous chemical.

Label elements

Hazard pictograms	Not applicable
Signal word	Not applicable

Hazard statements

Hazard statements	Not applicable
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Precautionary statements

◆ Prevention

Prevention	Not applicable
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◆ Response

Response	Not applicable
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◆ Storage

Storage	Not applicable
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◆ Disposal

Disposal	Not applicable
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Other hazards

	Not applicable.
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Hazard description

◆ Physical and chemical hazards

	No information available
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◆ Health hazards

Inhaled	Inhalation of the product may produce adverse health effects or irritation of the respiratory tract following discomfort.
Ingestion	Accidental ingestion of the product may be harmful to the health of the individual.
Skin Contact	Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.
Eye	This product may cause temporary discomfort following direct contact with the eye.

◆ Environmental hazards

	Please refer to 12th chapter of SDS.
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3 Composition/information on ingredients

Substance/mixture

	Mixture
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Component	CAS No.	EC No.	Concentration (Volume or weight percent, %)
Zinc sulfide (ZnS), copper chloride-doped	68611-70-1	271-904-2	90
Silicon dioxide	14808-60-7	238-878-4	10

4 First-aid measures

Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off with plenty of soap and water for at least 15 minutes and consult a physician if feel

	uncomfortable.
Ingestion	Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

Most important symptoms/effects, acute and delayed

1	Cumulative effects may result following exposure.
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Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Use extinguishing media suitable for surrounding area.
Unsuitable extinguishing media	There is no restriction on the type of extinguisher which may be used.

Specific hazards arising from the substance or mixture

1	Not considered a significant fire risk, however containers may burn.
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Special protective equipment and precautions for fire-fighters

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

1	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
2	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
3	Use personal protective equipment, do not breathe dust/fume.

Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

1	Cut off the source of the leak as much as possible.
2	Keep leaks in a ventilated place.
3	Isolation of contaminated areas and restrictions on access.
4	It is recommended that emergency personnel wear dust masks.
5	Collect the spill with a clean shovel and place it in a clean, dry, loosely closed container and move the container

away from the leak.

- 6 Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7 Handling and storage

Precautions for safe handling

- 1 Handling is performed in a well ventilated place.
- 2 Wear suitable protective equipment.
- 3 Avoid contact with skin and eyes.
- 4 Keep away from heat/sparks/open flames/ hot surfaces.

Conditions for safe storage, including any incompatibilities

- 1 Keep containers tightly closed.
- 2 Keep containers in a dry, cool and well-ventilated place.
- 3 Keep away from heat/sparks/open flames/hot surfaces.
- 4 Store away from incompatible materials and foodstuff containers.

8 Exposure controls/personal protection

Control parameters

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m ³	ppm	mg/m ³
Silicon dioxide	South Korea	-	0.05	-	-
	New Zealand	-	0.2	-	-
	Ireland	-	0.1	-	-
	Denmark	-	0.3	-	0.6
	Australia	-	0.1	-	-
	USA-ACGIH	-	0.025	-	-

Engineering controls

- 1 Ensure adequate ventilation, especially in confined areas.
- 2 Ensure that eyewash stations and safety showers are close to the workstation location.
- 3 Set up emergency exit and necessary risk-elimination area.
- 4 Handle in accordance with good industrial hygiene and safety practice.

Personal protection equipment

General requirement	
Eye protection	In general situation, eye protection is not needed. In the production process, when contacting with vapour or dust, tightly fitting safety goggles.
Hand protection	Wear appropriate protective gloves.
Respiratory protection	In general situation, respiratory protection is not needed. If exposure limits are exceeded or if irritation or other symptoms are experienced, wear dust proof mask

	or gas defence mask.
Skin and body protection	In general situation, skin and body protection are not needed.

9 Physical and chemical properties and safety characteristics

Physical and chemical properties

Appearance (physical state, color, etc.)	Light-green powder
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	No information available
Initial boiling point and boiling range(°C)	No information available
Flash point(Closed cup,°C)	Not applicable
Evaporation rate	Not applicable
Flammability	Not flammable
Upper/lower explosive limits[%(v/v)]	Upper limit : No information available ; Lower limit : No information available
Vapor pressure	Not applicable
Vapor density(Air = 1)	Not applicable
Relative density(Water=1)	No information available
Solubility	No information available
n-octanol/water partition coefficient	No information available
Auto-ignition temperature(°C)	No information available
Decomposition temperature(°C)	No information available
Viscosity	Not applicable

10 Stability and reactivity

Stability and reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.
Possibility of hazardous reactions	No information available.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	No information available.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

Acute toxicity

Acute toxicity	No information available
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Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP	OSHA Carcinogen List
Zinc sulfide (ZnS), copper chloride-doped	Not Listed	Not Listed	Not Listed
Silicon dioxide	Category 1	Category K	Not Listed

Others

National Geographic Zinc Sulfide	
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met

12 Ecological information

Acute aquatic toxicity

Acute aquatic toxicity	No information available
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Chronic aquatic toxicity

Chronic aquatic toxicity	No information available
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Persistence and degradability

Persistence and degradability	No information available
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Bioaccumulative potential

Bioaccumulative potential	No information available
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Mobility in soil

Mobility in soil	No information available
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13 Disposal considerations

Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

14 Transport information

Label

Transporting Label	Not applicable
US DOT (49CFR)	
49CFR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
IMDG-CODE	
IMDG-CODE	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
ICAO/IATA-DGR	
IATA-DGR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
UN-ADR	
UN-ADR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

15 Regulatory information

International chemical inventory

Component	EC inventory	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AIICS	ENCS
Zinc sulfide (ZnS), copper chloride-doped	√	√	√	√	√	√	√	√	×
Silicon dioxide	√	√	√	√	√	√	√	√	√

[EC inventory] European Inventory of Existing Commercial Chemical Substances

[TSCA] United States Toxic Substances Control Act Inventory

[DSL] Canadian Domestic Substances List

[IECSC] China Inventory of Existing Chemical Substances

[NZIoC] New Zealand Inventory of Chemicals

[PICCS] Philippines Inventory of Chemicals and Chemical Substances

[KECI] Korea Existing Chemicals Inventory

[AIICS] Australian. Inventory of Industrial Chemical (AIICS)

[ENCS] Japan Inventory of Existing & New Chemical Substances

US chemical inventory

Component	A	B	C	D	E	F	G	H
Zinc sulfide (ZnS), copper chloride-doped	×	×	×	×	×	×	×	×
Silicon dioxide	×	×	×	√	√	√	×	×

[A] US Clean Air Act (CAA)- Section 112, Hazardous Air Pollutants

[B] US SARA 302- Extremely Hazardous Substance List

[C] US CERCLA- Hazardous Substances List

[D] US Massachusetts Right-to-Know Substance List

[E] US New Jersey Right to Know Hazardous Substance List

[F] US Pennsylvania Right to Know Hazardous Substance List

[G] US New York City Right-to-Know Hazardous Substance List

[H] US California Proposition 65 List

Note:

“√” Indicates that the substance included in the regulations.

“×” No data or not included in the regulations.

16 Other information

Information on revision

Creation Date	2023/09/14
Revision Date	2023/09/14
Reason for revision	-

Reference

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.
- [2] IARC, website: <http://www.iarc.fr/>.
- [3] OECD: The Global Portal to Information on Chemical Substances, website: <https://www.echemportal.org/echemportal/substancesearch/index.action>.
- [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
- [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
- [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
- [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
- [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG-CODE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC ₅₀	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD ₅₀	Lethal Dose 50%	NTP	National Toxicology Program
EC ₅₀	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC _x	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P _{OW}	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor	HCS	Hazard Communication Standard

Disclaimer

This Safety Data Sheet (SDS) was prepared according to OSHA HCS-2012. The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

SDS Report

No. SHATY1607437202

Date: May. 10, 2016

Page 1 of 1

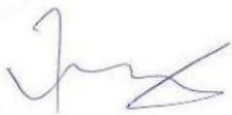
JMW SALES,INC.DBA Discover with Dr.Cool
993 Siskiyou Blvd, Suite 1, Ashland, OR97520,USA

SGS Ref. No. : T51610200002RA; SHHL1604019524TY-SH
Sample Name : Sodium bicarbonate
End Uses : Educational Science Kit
Composition/Ingredient of sample (as per client submission) : See *section 3 Composition/information on ingredients* on the SDS report
Job Receiving Date : Apr 15, 2016
Last Information Date : Apr 19, 2016
SDS Preparation Period : Apr 15 ~ Apr 20, 2016

Service Requested : Preparation of Safety Data Sheet (SDS) for the sample with submitted information.

Summary : As per request, the contents and formats of the SDS are prepared in accordance with US Regulations Relating to Labor 29 CFR 1910.1200 (g), and is provided per attached.

Signed for and on behalf of
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.



Wei WANG, Terry
Approved Signatory



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Safety Data Sheet

29 CFR 1910.1200

Printing date 05/10/2016

Reviewed on 04/19/2016

1 Identification

- **Product identifier**
- **Trade name:** Sodium bicarbonate
- **Recommended use of the chemical and restrictions on use**
- **Application of the substance / the preparation:** Educational Science Kit
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Manufacturer:
 Discover Fun International (HK) Limited
 Add: F 5, BLDG 561, Tong Long Second Rd, Torch Industrial District, Xiang'an, Xiamen, China
 Tel: 0086-592-7260836
 E-mail: discoverfun@163.com
 Contact: Helen Chang
- **Buyer**
 JMW SALES, INC. DBA Discover with Dr. Cool
 993 Siskiyou Blvd, Suite 1, Ashland, OR97520, USA
 Tel: (855) 437 2665
 E-mail: jordan@discoverwithdrcool.com
- **Other US contact point:**
 Jordan Willing JMW SALES, INC. DBA Discover with Dr. Cool
 993 Siskiyou Blvd, Suite 1, Ashland, OR97520, USA
 Tel: (855) 437 2665
 E-mail: jordan@discoverwithdrcool.com
- **Further information obtainable from:** JMW SALES, INC. DBA Discover with Dr. Cool
- **Emergency telephone number:**
 Helen Chang
 Tel: 0592-7260835
- **Poison Center**
 Tel: +1 800 222 1222
- **Reference Number:** T51610200002RA; SHHL1604019524TY-SH; SHATY1607437202

2 Hazard(s) identification

- **Classification of the substance or mixture**
 The product is not classified according to OSHA Hazard Communication Standard (29 CFR 1910.1200)
 - **Information concerning particular hazards for human and environment:**
 The product has not to be labeled due to the calculation procedure of OSHA Hazard Communication Standard (29 CFR 1910.1200).
 - **Classification system:**
 The classification is according to the latest edition of OSHA Hazard Communication Standard (29 CFR 1910.1200), and extended by company and literature data.
-
- **Label elements**
 - **Labelling according to OSHA Hazard Communication Standard (29 CFR 1910.1200)**
 - **Hazard pictograms** Not applicable
 - **Signal word** Not applicable
 - **Hazard-determining components of labeling:** Not applicable
 - **Hazard statements** Not applicable
 - **Precautionary statements** Not applicable
 - **Hazards not otherwise classified (HNOC)** No further relevant information available.

USA

(Contd. on page 2)

Safety Data Sheet

29 CFR 1910.1200

Printing date 05/10/2016

Reviewed on 04/19/2016

Trade name: Sodium bicarbonate

(Contd. of page 1)

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Composition:**

144-55-8	sodium hydrogencarbonate	80.0%
2611-82-7	trisodium 1-(1-naphthylazo)-2-hydroxynaphthalene-4',6,8-trisulphonate	20.0%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth with water.
Never give anything by mouth to an unconscious person.
Seek medical treatment.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Suitable extinguishing agents:**
CO₂ extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Special protective equipment and precautions for firefighters**
- **Protective equipment:**
Wear fully protective suit.
Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Avoid formation of dust.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Avoid contact with eyes.
Avoid contact with skin.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Pick up mechanically.
Dispose contaminated material as waste according to item 13.

USA

(Contd. on page 3)

Safety Data Sheet

29 CFR 1910.1200

Printing date 05/10/2016

Reviewed on 04/19/2016

Trade name: Sodium bicarbonate

(Contd. of page 2)

7 Handling and storage

- **Precautions for safe handling:**
 - Thorough dedusting.
 - Ensure good ventilation/exhaustion at the workplace.
 - Keep receptacles tightly sealed.
 - Keep away from heat and direct sunlight.
 - Prevent formation of dust.
 - Avoid contact with skin and eyes.
 - For the general occupational hygienic measures refer to section 8.
- **Information about protection against explosions and fires:** Normal measures for preventive fire protection.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
 - Store in a cool location.
 - Store only in the original receptacle.
- **Information about storage in one common storage facility:**
 - Store away from foodstuffs.
 - Store away from water.
 - Do not store together with acids.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls/personal protection

- **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:** The lists that were valid during the creation were used as basis.
- **Based on the composition shown in Section 3, the following measures are suggested for occupational safety measure:**
- **Appropriate engineering controls:** See Section 7 for information about design of technical facilities.
- **Personal protective equipment:**
- **Breathing equipment:** Suitable respiratory protective device recommended.
- **Protection of hands:**
 - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
 - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
 - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
 - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

9 Physical and chemical properties

- **General Information**
- **Appearance:**

Form:	Powder
Color:	Red
- **Odor:** Odorless

(Contd. on page 4)

Safety Data Sheet

29 CFR 1910.1200

Printing date 05/10/2016

Reviewed on 04/19/2016

Trade name: Sodium bicarbonate

(Contd. of page 3)

· Odor threshold:	Not available
· pH-value:	Not available
· Change in condition	
Melting point/Melting range:	Not available.
Freezing point:	Not available
Boiling point/Boiling range:	Not available
· Flash point:	Not available
· Flammability (solid, gaseous):	Not available.
· Auto-Ignition temperature:	Not available
· Decomposition temperature:	Not available
· Explosion limits:	
Lower:	Not available.
Upper:	Not available.
· Vapor pressure:	Not available
· Density:	Not available.
· Relative density	Not available.
· Vapor density	Not available
· Evaporation rate	Not available
· Solubility in / Miscibility with Water:	Not available
· Partition coefficient (n-octanol/water):	Not available
· Viscosity:	
Dynamic:	Not available
Kinematic:	Not available
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No decomposition if used according to specification.
- **Chemical stability** Stable under recommended storage conditions.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

144-55-8 sodium hydrogencarbonate

Oral LD50 4220 mg/kg (rat)

2611-82-7 trisodium 1-(1-naphthylazo)-2-hydroxynaphthalene-4',6,8-trisulphonate

Oral LD50 >8000 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation:** Irritating effect possible.
- **Serious eye damage/irritation:** Irritating effect possible.

(Contd. on page 5)

Safety Data Sheet

29 CFR 1910.1200

Printing date 05/10/2016

Reviewed on 04/19/2016

Trade name: Sodium bicarbonate

(Contd. of page 4)

- **Respiratory or skin sensitisation:** Sensitization possible.
 - **Additional toxicological information:**
The product is not subject to classification according to internally approved calculation methods for preparations.
 - **Carcinogenic categories**
- | |
|--------------------------------------------------------------------|
| · IARC (International Agency for Research on Cancer) |
| None of the ingredients is listed. |
| · NTP (National Toxicology Program) |
| None of the ingredients is listed. |
| · OSHA-Ca (Occupational Safety & Health Administration) |
| None of the ingredients is listed. |

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Smaller quantities can be disposed of with household waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|----------------------------------------------------------------------------------|------------------------------------------------------|
| · UN-Number | |
| · DOT, IMDG, IATA | Not applicable |
| · UN proper shipping name | |
| · DOT, IMDG, IATA | Not applicable |
| · Transport hazard class(es) | |
| · DOT, IMDG, IATA | |
| · Class | Not applicable |
| · Packing group | |
| · DOT, IMDG, IATA | Not applicable |
| · Environmental hazards | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |

(Contd. on page 6)

Safety Data Sheet

29 CFR 1910.1200

Printing date 05/10/2016

Reviewed on 04/19/2016

Trade name: Sodium bicarbonate

(Contd. of page 5)

· UN "Model Regulation": -

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

16 Other information

 The contents and format of this SDS are in accordance with 29 CFR 1910.1200(g).

DISCLAIMER OF LIABILITY

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

· Date of preparation / last revision 05/10/2016 / -

· Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

(Contd. on page 7)

Safety Data Sheet
29 CFR 1910.1200

Printing date 05/10/2016

Reviewed on 04/19/2016

Trade name: Sodium bicarbonate

(Contd. of page 6)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

. *****

End of document

USA

Safety Data Sheet

Psyllium Husk Powder

Version: V2.0.1.1

Report No.: HGBZ2510LP42

Creation Date: 2025/10/15

Revision Date: -

***Prepared according to American OSHA HCS-2024 (29 CFR 1910.1200)**

Part 1: Identification

Product identifier

Product Name	Psyllium Husk Powder
CAS No.	8063-16-9
EC No.	-
Molecular Formula	-

Recommended use of the product and restrictions on use

Relevant identified uses	Used in chemistry sets.
Uses advised against	Please consult manufacturer.

Details of the supplier of the Safety Data Sheet

Applicant Name	North Star (Xiamen) Technology Co., Ltd.
Applicant Address	No.63, Hongxi South Road, Xiangan Industrial Zone, Xiamen Torch High-tech Park, Xiamen, Fujian, China
Applicant Post Code	361100
Applicant Telephone	0086-592-7829518
Applicant Fax	-
Applicant E-mail	nscompliance@northstarxm.com
Supplier Name	JMW Sales, Inc., dba Blue Marble
Supplier Address	101 A Street Ashland, OR 97520 USA
Supplier Post Code	-
Supplier Telephone	+1(541)708-6738
Supplier Fax	-
Supplier E-mail	v_compliance@thinkbluemarble.com

Emergency phone number

Emergency phone number	+1 800 222 1222
------------------------	-----------------

Part 2: Hazard(s) identification

Hazard classification according to 29 CFR 1910.1200

According to OSHA HCS-2024, not classified as a hazardous chemical.

Label elements

Hazard pictograms	Not applicable
Signal word	Not applicable

Hazard statements

Hazard statements	Not applicable
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Precautionary statements

- ◆ Prevention

Prevention	Not applicable
-------------------	----------------

- ◆ Response

Response	Not applicable
-----------------	----------------

- ◆ Storage

Storage	Not applicable
----------------	----------------

- ◆ Disposal

Disposal	Not applicable
-----------------	----------------

Other hazards

- ◆ Other

	Not applicable.
--	-----------------

Hazard description

- ◆ Physical and chemical hazards

	No information available.
--	---------------------------

- ◆ Health hazards

Inhaled	According to GHS system, not classified as a hazardous chemical.
----------------	------------------------------------------------------------------

Ingestion	According to GHS system, not classified as a hazardous chemical.
------------------	------------------------------------------------------------------

Skin Contact	According to UN GHS. Not classified as a dangerous substance.
---------------------	---------------------------------------------------------------

Eye	According to UN GHS. Not classified as a dangerous substance.
------------	---------------------------------------------------------------

- ◆ Environmental hazards

	Please refer to 12th chapter of SDS.
--	--------------------------------------

Part 3: Composition/information on ingredients

Substance/mixture

	Substance
--	-----------

Component	CAS No.	EC No.	Concentration (weight percent, %)
Psyllium gum	8063-16-9	-	100

Part 4: First-aid measures

Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
-----------------------	---------------------------------------------------------------------------------------------------------

Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
--------------------	--------------------------------------------------------------------------------------------------------------

Skin contact	No harm in general situation. First aid is not needed.
---------------------	--------------------------------------------------------

Ingestion	Never give anything by mouth to an unconscious person. Call a physician immediately.
------------------	--------------------------------------------------------------------------------------

Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen and consult a physician
-------------------	--------------------------------------------------------------------------------------------

	immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

Most important symptoms/effects, acute and delayed

1	Please see section 11.
---	------------------------

Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

Part 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Use extinguishing media suitable for surrounding area.
Unsuitable extinguishing media	There is no restriction on the type of extinguisher which may be used.

Specific hazards arising from the substance or mixture

1	Development of hazardous combustion gases or vapor possible in the event of fire.
2	Not considered a significant fire risk, however containers may burn.

Special protective equipment and precautions for fire-fighters

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

Part 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

1	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
2	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
3	Use personal protective equipment, do not breathe dust/fume.

Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

1	Keep leaks in a ventilated place.
2	Cut off the source of the leak as much as possible.
3	Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
4	Isolation of contaminated areas and restrictions on access.
5	It is recommended that emergency personnel wear dust masks.
6	Collect the spill with a clean shovel and place it in a clean, dry, loosely closed container and move the container away from the leak.

Part 7: Handling and storage

Precautions for safe handling

1	Handling is performed in a well ventilated place.
2	Wear suitable protective equipment.
3	Avoid contact with skin and eyes.
4	Keep away from heat/sparks/open flames/ hot surfaces.

Conditions for safe storage, including any incompatibilities

1	Keep containers tightly closed.
2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/hot surfaces.
4	Store away from incompatible materials and foodstuff containers.

Part 8: Exposure controls/personal protection

Control parameters

- ◆ Occupational exposure limit values

Occupational Exposure limit values	No relevant regulations
-------------------------------------------	-------------------------

- ◆ Monitoring methods

1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2	GBZ/T 300 and GBZ/T 160 series standard Determination of toxic substances in workplace air.

Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Set up emergency exit and necessary risk-elimination area.
4	Handle in accordance with good industrial hygiene and safety practice.

Personal protection equipment

General requirement	No special requirements, please see the description below.
Eye protection	In general situation, eye protection is not needed. In the production process, when contacting with vapour or dust, tightly fitting safety goggles.
Hand protection	In general situation, hand protection is not needed.
Respiratory protection	In general situation, respiratory protection is not needed. If exposure limits are exceeded or if irritation or other symptoms are experienced, wear dust proof mask or gas defence mask.
Skin and body protection	In general situation, skin and body protection are not needed.

Part 9: Physical and chemical properties and safety characteristics

Physical and chemical properties

Appearance (physical state, color, etc.)	Cream Powder
Odor	Slightly special odor
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	No information available
Initial boiling point and boiling range(°C)	No information available

Flash point(Closed cup,°C)	Not applicable
Evaporation rate	Not applicable
Flammability	No information available
Upper/lower explosive limits[%(v/v)]	Upper limit: No information available; Lower limit: No information available
Vapor pressure	Not applicable
Vapor density(Air=1)	Not applicable
Relative density(Water=1)	No information available
Solubility	It first expands when exposed to water and then gradually hydrates
n-octanol/water partition coefficient	No information available
Auto-ignition temperature(°C)	No information available
Decomposition temperature(°C)	No information available
Viscosity	Not applicable

Part 10: Stability and reactivity

Stability and reactivity	
Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.
Possibility of hazardous reactions	No information available.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	No information available.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Part 11: Toxicological information

Acute toxicity	
Acute toxicity	No information available

Carcinogenicity			
Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP	OSHA Carcinogen List
Psyllium gum	Not Listed	Not Listed	Not Listed

Others	
Psyllium gum(Component)	
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met

Part 12: Ecological information

Acute aquatic toxicity

Acute aquatic toxicity	No information available
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Chronic aquatic toxicity

Chronic aquatic toxicity	No information available
--------------------------	--------------------------

Persistence and degradability

Persistence and degradability	No information available
-------------------------------	--------------------------

Bioaccumulative potential

Bioaccumulative potential	No information available
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Mobility in soil

Mobility in soil	No information available
------------------	--------------------------

Part 13: Disposal considerations

Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

Part 14: Transport information

Label

Transporting Label	Not applicable
--------------------	----------------

US DOT (49CFR)

49CFR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
-------	------------------------------------------------

IMDG-CODE

IMDG-CODE	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
-----------	------------------------------------------------

ICAO/IATA-DGR

ICAO/IATA-DGR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
---------------	------------------------------------------------

UN-ADR

UN-ADR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
--------	------------------------------------------------

Transport in bulk according to IMO instruments

- ◆ Transport in bulk according to Annex II of MARPOL and the IBC code

	No information available
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- ◆ Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

	No information available
--	--------------------------

- ◆ Transport in bulk in accordance with the IGC Code

	No information available
--	--------------------------

Others

Precautions for transport	Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.
---------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Part 15: Regulatory information

International chemical inventory

Component	A	B	C	D	E	F	G	H	I	J	K	L	M
Psyllium gum	×	×	×	×	×	×	×	×	×	×	√	√	√

- 【A】 China Inventory of Existing Chemical Substances(IECSC)
- 【B】 European Inventory of Existing Commercial Chemical Substances(EC inventory)
- 【C】 United States Toxic Substances Control Act Inventory(TSCA)
- 【D】 Canadian Domestic Substances List(DSL)
- 【E】 New Zealand Inventory of Chemicals(NZIoC)
- 【F】 Philippines Inventory of Chemicals and Chemical Substances(PICCS)
- 【G】 Korea Existing Chemicals Inventory(KECL)
- 【H】 Australian. Inventory of Industrial Chemical (AIICS)
- 【I】 Japan Inventory of Existing & New Chemical Substances(ENCS)
- 【J】 Thailand Existing Chemicals Inventory(TECI)
- 【K】 Mexico National Inventory of Chemical Substances(INSQ)
- 【L】 Russia Inventory of Existing Substances(DRAFT)
- 【M】 Inventory of Existing Chemical Substances in Taiwan, China(TCSI)

List of Chemical Substances under International Conventions

Component	A	B	C
Psyllium gum	×	×	×

- 【A】 The Montreal Protocol on Substances that Deplete the Ozone Layer
- 【B】 Stockholm Convention on Persistent Organic Pollutants (POPs)
- 【C】 Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade

US chemical inventory

Component	A	B	C	D	E	F	G	H
Psyllium gum	×	×	×	×	×	×	×	×

- 【A】 US Clean Air Act (CAA)- Section 112, Hazardous Air Pollutants
- 【B】 US SARA 302- Extremely Hazardous Substance List
- 【C】 US CERCLA- Hazardous Substances List
- 【D】 US Massachusetts Right-to-Know Substance List
- 【E】 US New Jersey Right to Know Hazardous Substance List
- 【F】 US Pennsylvania Right to Know Hazardous Substance List
- 【G】 US New York City Right-to-Know Hazardous Substance List
- 【H】 US California Proposition 65 List

Note:

- “√” Indicates that the substance included in the regulations.
- “×” No data or not included in the regulations.

Part 16: Other information

Information on revision

Creation Date	2025/10/15
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Revision Date	-
Reason for revision	-

Reference

- 【1】 IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.
- 【2】 IARC, website: <http://www.iarc.fr/>.
- 【3】 OECD: The Global Portal to Information on Chemical Substances, website: <https://www.echemportal.org/echemportal/>.
- 【4】 CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
- 【5】 NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
- 【6】 EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
- 【7】 U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
- 【8】 Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG-CODE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC ₅₀	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD ₅₀	Lethal Dose 50%	NTP	National Toxicology Program
EC ₅₀	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC _x	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P _{OW}	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor	G1	Carcinogenic to humans
G2A	Probably carcinogenic to humans	G2B	Possibly carcinogenic to humans
G3	Not yet classified as carcinogenic to humans	G4	Probably not carcinogenic to humans
HCS	Hazard Communication Standard		

Disclaimer

This Safety Data Sheet (SDS) was prepared according to OSHA HCS-2024. The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user’s reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

Safety Data Sheet

29 CFR 1910.1200


Printing date 07/17/2023


Reviewed on 07/17/2023

1 Identification

- **Product identifier**
- **Trade name:** *National Geographic Calcium Chloride*
- **CAS Number:**
10043-52-4
- **Recommended use of the chemical and restrictions on use**
- **Application of the substance / the preparation:** *Chemical Set*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
North Star (Xiamen) Technology Co., Ltd.
No.63, Hongxi South Road, Xiangnan Industrial Zone, Xiamen Torch High-tech Park, Xiamen, Fujian, China
Tel: +86-(0)592-7829518
Email: Michellelv@northstarxm.com
- **Other US contact point:**
JMW Sales, Inc., dba Blue Marble
101 A Street Ashland, OR 97520 USA
Josh Hoffner
Email: jhoffner@jmwsales.com
- **Further information obtainable from:** *North Star (Xiamen) Technology Co., Ltd.*
- **Emergency telephone number:**
Michelle Lv
Tel: +86-(0)592-7829518
GERMANY
Poison Center Berlin - Institute of Toxicology
Tel: +49 030 192 40

2 Hazard(s) identification

- **Classification of the substance or mixture**
Classification according to OSHA Hazard Communication Standard (29 CFR 1910.1200)
- 
 GHS07

Eye Irritation 2A H319 Causes serious eye irritation.
- **Information concerning particular hazards for human and environment:**
The product has to be labeled due to the calculation procedure of OSHA Hazard Communication Standard (29 CFR 1910.1200).
- **Classification system:**
The classification is according to the latest edition of OSHA Hazard Communication Standard (29 CFR 1910.1200), and extended by company and literature data.
- **Label elements**
- **Labelling according to OSHA Hazard Communication Standard (29 CFR 1910.1200)**
- **Hazard pictograms**
- 
 GHS07
- **Signal word** *Warning*
- **Hazard-determining components of labeling:** *Not applicable.*
- **Hazard statements**
H319 Causes serious eye irritation.
- **Precautionary statements**
P264 Wash thoroughly after handling.

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Trade name: National Geographic Calcium Chloride

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- P280 *Wear eye protection / face protection.*
- P305+P351+P338 *If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
- P337+P313 *If eye irritation persists: Get medical advice/attention.*
- **Hazards not otherwise classified (HNOC)** *No further relevant information available.*

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
10043-52-4 calcium chloride
- **Remark:** *This product contains substance calcium chloride (CAS No: 10043-52-4) 100% by weight.*

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** *Supply fresh air; consult doctor in case of complaints.*
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth with water.
Never give anything by mouth to an unconscious person.
Seek medical treatment.
- **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Suitable extinguishing agents:** *Use fire fighting measures that suit the environment.*
- **Special hazards arising from the substance or mixture:** *No further relevant information available.*
- **Special protective equipment and precautions for firefighters**
No special measures required.
- **Protective equipment:**
Mouth respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**
Ensure adequate ventilation.
Avoid formation of dust.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Avoid contact with eyes.
Avoid contact with skin.
- **Environmental precautions:** *Do not allow to enter sewers/ surface or ground water.*
- **Methods and material for containment and cleaning up:**
Pick up mechanically.

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Dispose contaminated material as waste according to section 13.

7 Handling and storage

- **Precautions for safe handling:**
 - Keep away from heat and direct sunlight.
 - Ensure good ventilation/exhaustion at the workplace.
 - Prevent formation of dust.
 - Avoid contact with eyes and skin.
 - For the general occupational hygienic measures refer to Section 8.
- **Information about protection against explosions and fires:** Normal measures for preventive fire protection.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls/personal protection

- **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:** The lists that were valid during the creation were used as basis.
- **Based on the composition shown in Section 3, the following measures are suggested for occupational safety measure**
- **Appropriate engineering controls:**
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing.
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes and skin.
 - See Section 7 for information about design of technical facilities.
- **Personal protective equipment**
- **Breathing equipment:** Suitable respiratory protective device recommended.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves:**
 - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material:**
 - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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Trade name: National Geographic Calcium Chloride

(Contd. of page 3)

· **Eye protection:**

Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**

· Form:	Solid
· Color:	White
· Odor:	Odorless
· Odor threshold:	Not available.

· **pH-value:** Not available.· **Change in condition**

· Melting point/Melting range:	Not available.
· Freezing point:	Not available.
· Boiling point/Boiling range:	Not available.

· **Flash point:** Not available.· **Flammability (solid, gaseous):** Not available.· **Auto-Ignition temperature:** Not available.· **Decomposition temperature:** Not available.· **Explosion limits:**

· Lower:	Not available.
· Upper:	Not available.

· **Vapor pressure:** Not available.· **Density:** Not available.· **Relative density** Not available.· **Vapor density** Not available.· **Evaporation rate** Not available.· **Solubility in / Miscibility with**· **Water:** Not available.· **Partition coefficient (n-octanol/water):** Not available.· **Viscosity:**

· Dynamic:	Not available.
· Kinematic:	Not available.

· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity** No decomposition if used according to specifications.· **Chemical stability** Stable under recommended storage conditions.· **Possibility of hazardous reactions** No dangerous reactions known.· **Conditions to avoid** No further relevant information available.· **Incompatible materials:** No further relevant information available.

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· **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity**
- **LD/LC50 values that are relevant for classification:** Data not available.
- **Primary irritant effect**
- **Skin corrosion/irritation:** Irritating effect possible.
- **Serious eye damage/irritation:** Irritating effect.
- **Respiratory or skin sensitisation:** Sensitization possible.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|----------------------------------------------------------------------------------------------------------------------|-----------------|
| <ul style="list-style-type: none"> · UN-Number · DOT, IMDG, IATA | Not applicable. |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT, IMDG, IATA | Not applicable. |

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Trade name: National Geographic Calcium Chloride

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- | | |
|----------------------------------------------------------------------------------|-----------------|
| · Transport hazard class(es) | |
| · DOT, IMDG, IATA | |
| · Class | Not applicable. |
| · Packing group | |
| · DOT, IMDG, IATA | Not applicable. |
| · Environmental hazards | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Not applicable. |

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

- Sara**

- Section 355 (extremely hazardous substances):**

Substance is not listed.

- Section 313 (Specific toxic chemical listings):**

Substance is not listed.

- TSCA (Toxic Substances Control Act):**

ACTIVE

- Proposition 65**

- Chemicals known to cause cancer:**

Substance is not listed.

- Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

- Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

- Chemicals known to cause developmental toxicity:**

Substance is not listed.

- New Jersey Right-to-Know List:**

Substance is not listed.

- New Jersey Special Hazardous Substance List:**

Substance is not listed.

- Pennsylvania Right-to-Know List:**

Substance is not listed.

- Pennsylvania Special Hazardous Substance List:**

Substance is not listed.

- Cancerogenity categories**

- EPA (Environmental Protection Agency):**

Substance is not listed.

- TLV (Threshold Limit Value established by ACGIH):**

Substance is not listed.

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· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

Substance is not listed.

· **National regulations**

· **Additional classification according to Decree on Hazardous Materials:**

· **REACH Regulation Annex XVII Restriction**

See Section 16 for information about restriction of use.

Substance is not listed.

· **REACH Regulation Annex XIV Authorisation List**

Substance is not listed.

16 Other information

· *****

DISCLAIMER OF LIABILITY :

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

In addition, transport information of Section 14 in the report was calculated theoretically, while the results are not always consistent with Certification for Safe Transport of Chemical Goods from the officially authorized agencies. Please consult the officially authorized agencies for the accurate transport information.

DISCLAIMER OF LIABILITY :

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

· **Date of preparation / last revision 07/17/2023**

· **Abbreviations and acronyms:**

IMDG: 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

· *****

End of document