



SAFETY DATA SHEET

PRODUCT NAME **BULLDOG 20-20-20 STABLE N**

Product Code: NCT.2202020SN_114_02.1_USA

Date of issue: September 2019

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier Bulldog 20-20-20 Stable N

Recommended uses:

Fertilizer end-use, preparation of fertilizers mixtures.

Dry fertilizer for mixing with water for foliar and soil applications.

Restrictions on uses:

None

Manufacturer

SQM North America
2727 Paces Ferry Rd, Building Two, Suite 1425
Atlanta, GA 30339

Company Telephone/Fax

(770) 916 9400 / (770) 916 9404

Emergency Telephone Number

(800) 424 9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

Classification of the mixture

Classification of the chemical in accordance with 29CFR §1910.1200

Not classified as hazardous.

Label elements

Hazard pictograms None applicable

Signal word None applicable

Hazard Statements None applicable

Precautionary Statements None applicable

Other hazards

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is to be considered as a mixture/preparation

Substance name

CAS No

EC No

Concentration

No substance meeting the classification criteria for health is present over its cut-off value in accordance with OSHA, 29CFR §1910.1200/2012.

Contains some or all of the following: phosphate salts, sulfate salts, potassium salts, secondary nutrients and micronutrients.

4. FIRST AID MEASURES

Description of first aid measures

General information

In case of persisting adverse effects consult a physician.

Never give anything by mouth to an unconscious person or a person with cramps.

In case of inhalation

Remove to fresh air and keep at rest in a position comfortable for breathing.

Get medical attention for any breathing difficulty.

In case of skin contact

Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

In case of eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

In case of ingestion

Rinse mouth and drink plenty of water. Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

The following symptoms may occur:

In case of inhalation

Irritation to respiratory tract

Delayed lung effects after short term exposure to thermal degradation products



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In case of skin contact May cause redness or irritation
In case of eye contact May cause redness or irritation
In case of ingestion Ingestion of large amounts may cause: gastrointestinal disturbances

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Use any suitable mean for extinguishing surrounding fire.

Unsuitable material: None, but attention should be paid to compatibility with chemicals surrounding.

Specific hazards arising from the chemical

Thermal decomposition can lead to the escape of toxic/corrosive gases and vapours.

Thermal decomposition products: Nitrous oxides (NOx), nitrites, phosphorus oxides, ammonia and metallic oxides.

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and a chemical protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Provide adequate ventilation. Wear personal protection equipment (Section 8).

Environmental precautions

Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal or recovery.

Unsuitable material for containment/taking up: None specified

Other information

None

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid generation of dust. Provide adequate ventilation. Wear personal protective equipment, when required. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Keep away from flammable, combustible, strong acids, and reducing substances.

Conditions for safe storage, including any incompatibilities

Keep/store only in original container. Store in a well-ventilated place. Keep container tightly closed.

Do not store together with: Flammable substance, reducing agents, strong acids, empty wood pallets.

Perchlorate containing product - Special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate and Section 15 for more information regarding California State regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Occupational exposure limits

OSHA	PEL	Not Established
	STEL/ceiling	Not Established
ACGIH (2012 TLVs® and BEIs®)		
	TWA	Not Established
	STEL/ceiling	Not Established

Engineering controls

Use exhaust ventilation to keep airborne concentrations below exposure limits.

Personal Protective Equipment

Eye/face protection Chemical goggles, recommended.

Skin Protection Nitrile rubber gloves, recommended.



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Respiratory Protection

Wear respiratory protection, where airborne concentrations are expected to exceed exposure limits

General Hygiene Considerations

Avoid contact with eyes and skin. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Appearance	Solid, crystalline powder
Colour	Pale Blue
Odour	Odourless
Odour Threshold	No applicable
pH value	No data available
Melting point / freezing range	No data available
Boiling temperature / boiling range	Not applicable
Flash point	Not applicable
Vapourisation rate / Evaporation rate	No data available
Flammable solids	Not flammable
Explosion limits (LEL, UEL)	Not applicable
Vapour pressure	Not applicable
Vapour density	Not applicable
Relative Density	No data available
Solubility	> 100 g/L at 20°C/68°F (water)
Partition coefficient n-octanol /water	Not applicable
Auto Ignition temperature (AIT)	Not applicable
Decomposition temperature	No data available
Viscosity	Not applicable
Explosive properties	Not explosive
Oxidizing properties	Not oxidizer

Other information

None

10. STABILITY AND REACTIVITY**Reactivity**

No hazardous reaction when handled and stored according to provisions.

Chemical stability

Stable under normal storage and temperature conditions.

Possibility of hazardous reactions

None identified

Conditions to avoid

Keep away from flammable, combustible, strong acids, and reducing materials. Keep away from empty wood pallets.

Incompatible materials

Flammable, combustible, strong acids and reducing substances under specific conditions. These incompatible materials shall not include approved packaging materials, pallets, or other dunnage (NFPA 400/2016, Hazardous Materials Code, item 15.3.5.2.1.1).

Hazardous decomposition productsThermal decomposition products: Nitrous oxides (NO_x), nitrites, phosphorus oxides, ammonia and metallic oxides.**11. TOXICOLOGICAL INFORMATION**

The following information mostly refers to the major component of the product.

Likely routes of exposure (inhalation, ingestion, skin and eye contact)

Eye contact, skin contact and inhalation. Exposure by ingestion is not expected to occur through normal industrial or agricultural use.



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Symptoms related to the physical, chemical and toxicological characteristics

May be irritant to the respiratory tract. May cause redness or irritation to the skin and eyes. Ingestion of large amounts may cause gastrointestinal disturbances. May cause delayed lung effects after short term exposure to thermal degradation products.

Information on toxicological effects from short and long term exposure

There is no data for the mixture itself.

Acute toxicity

Acute oral toxicity

LD50:

Acute Toxicity Estimate for the mixture

>2000 mg/kg bw

(additivity formula)

Acute dermal toxicity

LD50:

Acute Toxicity Estimate for the mixture

>2000 mg/kg pc

(additivity formula)

Acute inhalation toxicity

LC50:

Acute Toxicity Estimate for the mixture

Does not contain acutely toxic ingredients/impurities.

Assessment / classification:

Based on available data for the ingredients of the mixture, the classification criteria are not met.

Irritant and corrosive effects

There is no data for the mixture itself.

Irritation to the skin

The product does not contain relevant ingredients classified as corrosive or irritant to the skin in accordance with OSHA, 29 CFR 1910.1200.

Irritation to eyes

The product does not contain relevant ingredients classified as serious eye damage / eye irritant in accordance with OSHA, 29 CFR 1910.1200.

Assessment / classification:

Based on available data for the ingredients of the mixture, the classification criteria are not met.

Respiratory or skin sensitisation

There is no data for the mixture itself. The product does not contain ingredients classified as a respiratory or skin sensitizer present at or above their cut-off value in accordance with OSHA, 29 CFR 1910.1200.

Assessment / classification:

Based on available data for the ingredients of the mixture, the classification criteria are not met.

Genetic effects

The product does not contain ingredients classified as germ cell mutagens present at or above their cut-off value in accordance with OSHA, 29 CFR 1910.1200.

Assessment / classification:

Based on available data for the ingredients of the mixture, the classification criteria are not met.

Reproductive toxicity

The product does not contain ingredients classified as a category 1 or category 2 reproductive toxicant or for effects on or via lactation present at or above their cut-off value in accordance with OSHA, 29 CFR 1910.1200.

Assessment / classification:

Based on available data for the ingredients of the mixture, the classification criteria are not met.

Specific target organ toxicity (single exposure)

There is no data for the mixture itself.

The product does not contain relevant ingredients classified as Target Organ Toxicant in accordance with OSHA, 29 CFR 1910.1200.

Assessment / classification:

Based on available data for the ingredients of the mixture, the classification criteria are not met.

Specific target organ toxicity (repeated exposure)

There is no data for the mixture itself.

The product does not contain relevant ingredients classified as Target Organ Toxicant in accordance with OSHA, 29 CFR 1910.1200.

Assessment / classification:

Based on available data for the ingredients of the mixture, the classification criteria are not met.

Aspiration hazard

Physicochemical data and toxicological information does not indicate an aspiration hazard.

Assessment / classification:

Based on available data for the ingredients of the mixture, the classification criteria are not met.



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Carcinogenicity

International Agency for Research on Cancer (IARC)

No component of this product present at levels $\geq 0.1\%$ is identified as probable, possible or confirmed human carcinogen by IARC.

National Toxicology Program (NTP)

No component of this product present at levels $\geq 0.1\%$ is identified as known or anticipated carcinogen by NTP.

29 CFR part 1910, subpart Z

No component of this product present at levels $\geq 0.1\%$ is identified as carcinogen or potential carcinogen by OSHA.

California Proposition 65

No component of this product present at levels $\geq 0.1\%$ is identified as carcinogen by California Prop.65.

WHO (2003) Nitrate in drinking water

No association between nitrate exposure in humans and the risk of cancer

Assessment / classification:

Based on available data, the classification criteria are not met.

Other Toxicological Information

This product contains trace amounts of naturally-occurring perchlorate and iodate. Like other goitrogenic substances, perchlorate may affect iodine uptake by thyroid under specific conditions.

12. ECOLOGICAL INFORMATION

There is no data for the mixture itself. The following information mostly refers to the major component of the product.

Ecotoxicity

Aquatic Toxicity

Toxicity estimate for the mixture (summation method)

96-h L(E)C50

>100 mg/L

Fish

24-h E(E)C50

>100 mg/L

Daphnia magna (fresh water flea).

72-h E(E)C50

> 100 mg/L

Algae

Assessment / classification

Based on available data for the ingredients of the mixture, the classification criteria are not met.

Persistence and degradability

The product contains mainly inorganic nitrate and phosphate salts. In aqueous solutions, these salts dissociate into their respective ions. Phosphate ions are finally incorporated into the Phosphorus cycle. Under anoxic conditions, denitrification occurs and nitrate is ultimately converted into molecular nitrogen as part of the Nitrogen cycle.

Bioaccumulative potential

Low potential for bioaccumulation based on physicochemical properties of main components.

Mobility in soil

The components of this mixture have a low potential for adsorption. Portion not taken up by plants, can leach to groundwater.

Other adverse effects

Excess nitrate leaching may enrich waters leading to eutrophication.

13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with applicable federal and state laws.

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal method in compliance with applicable regulations.

This product is not listed as dangerous waste in the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Perchlorate containing product - Special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate and Section 15 for more information regarding California State regulations.

14. TRANSPORTATION INFORMATION

US DOT (49CFR part 172)

UN-No.

Non dangerous good

UN Proper Shipping Name

Not applicable

Hazard class

Not applicable

Packing group

Not applicable

Hazard label(s)

Not applicable



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Special marking No

Special Provision No

International Maritime Organization (IMDG Code)

UN-No. Non dangerous good

UN Proper Shipping Name Not applicable

Hazard class Not applicable

Packing group Not applicable

Marine pollutant No

Hazard label(s) Not applicable

Special marking No

International Civil Aviation Organization (ICAO) and International Air Transport Association (IATA)

UN-No. Non dangerous good

UN Proper Shipping Name Not applicable

Hazard class Not applicable

Packing group Not applicable

Hazard label Not applicable

Special marking No

Special handling procedure

None

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

Not applicable

Other special precautions

None

15. REGULATORY INFORMATION

US Federal

SARA Title III Rules

Section 311/312 Hazard Classes

Acute Health Hazard No

Chronic Health Hazard No

Fire Hazard No

Release of Pressure No

Reactive Hazard No

Section 313 Toxic Chemicals

N511 Nitrate compounds (water dissociable; reportable only when in aqueous solution)

Section 302 Extremely Hazardous Substances (EHS)/CERCLA Hazardous Substances

None ingredient is listed.

NFPA 704/2017: National Fire Protection Association

Health 0

Fire 0

Reactivity 0

Special None

US State Regulations

California Proposition 65 None ingredient is listed.

California Code of Regulations Title 22 (Health & Safety Code), Chapter 33 See <http://www.dtsc.ca.gov/hazardouswaste/perchlorate/>

Canada

This product has been classified according to the hazard criteria of the 2015 Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

Chemical Inventories

United States TSCA All ingredients are listed

Canada DSL All ingredients are listed

European Union (EINECS) All ingredients are listed



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Japan (METI)

All ingredients are listed

16. OTHER INFORMATION

This SDS complies with the US 29 CFR part 1910 subpart Z (2012), ANSI Standard Z400.1-2004 and Canadian 2015 Hazardous Products Regulations (HPR)

Data source REACH Registration Dossiers for major components
Prepared by Regulatory Affairs Department, SQM
E-mail product_safety@sqm.com
spn-northamerica@sqm.com

Date of issue: September 2019 **Supersedes** April 2016

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Indication of changes

- Version 02.1 (September 2019) DNEL removed (Section 8)
Incompatible materials information updated (section 10)
NFPA 704 rule updated (section 15)
- Version 02 (May 2016) Hazard classification has been changed in accordance with the composition (section 2)
Composition of the formula has been changed: boric acid was reduced to less than 0.1%. Section 3 was modified in compliance with OSHA HazCom 2012.
Product code (document code) was changed
All sections were revised and updated in accordance with the new hazard classification
Regulatory information was updated (Section 15).
Minor editorial changes.
- Version 01.1 (February 2016) All sections were revised and minor changes were made in section 2,4, 7, 8, 9, 10.
Identification of ingredient classified as health hazards (section 3)
DNEL and toxicity values were adjusted referring to the mixture (section 8, 11, 12).
Regulatory information was updated (Section 15).
- Version 01 (March 2014) New document