

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Identification of the substance or mixture

Product Name	FARMWORKS® SPRAY TANK FLUSH
Product Grade(s)	Dense Soda Ash Chemical Grade Soda Ash
Chemical Name	Sodium Carbonate
Synonyms	soda salt, disodium carbonate
Molecular formula	Na ₂ CO ₃
Molecular Weight	106 g/mol

1.2. Use of the Substance/Mixture

Recommended Use	Chemical Spray Tank Flush
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1.3. Company/Undertaking Identification

Distributed by	Ragan & Massey, Inc. 101 Ponchatoula Parkway Ponchatoula, Louisiana 70454 United States
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1.4. Emergency and contact telephone numbers

Emergency telephone number	1 (800) 434-9300	CHEMTREC®
Contact telephone number	1 (800) 264-5281	(Product Information)
	1 (985) 386-6042	(Product Information)

2. HAZARDS IDENTIFICATION

2.1. Emergency Overview:

NFPA	H=2	F=0	I=0	S=None
HMIS	H=2	F=0	R=0	PPE=Supplied by User;dependent on local conditions

General Information

Appearance	granules, powder
Color	white
Odor	odorless

2.2. Potential Health Effects:

Inhalation

- May cause nose, throat, and lung irritation.
- Repeated or prolonged exposure: Risk of sore throat, nose bleeds.
- (In case of higher concentration): Cough.

Eye contact

- Severe eye irritation.
- Symptoms: Redness, Lachrymation, Swelling of tissue.

Skin contact

- Prolonged skin contact may cause skin irritation.

Ingestion

- Severe irritation
- Symptoms: Nausea, Abdominal pain, Vomiting, Diarrhea.

Other toxicity effects

- See Section 11: Toxicological Information

2.3. Environmental Effects

- See Section 12: Ecological Information

3. COMPOSITION / INFORMATION ON INGREDIENTS**Sodium carbonate**

CAS-No. 497-19-8

Concentration $\geq 99.8\%$

4. FIRST AID MEASURES**4.1. Inhalation**

- Move to fresh air.
- If symptoms persist, call a physician.

4.2. Eye contact

- In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eye-lids, for at least 15 minutes.
- If eye irritation persists, consult a specialist.

4.3. Skin contact

- Remove and wash contaminated clothing before re-use.
- Wash off with soap and water.
- If symptoms persist, call a physician.

4.4. Ingestion

- Rinse mouth with water.
- Do NOT induce vomiting.
- If symptoms persist, call a physician or Poison Control Center immediately.

5. FIRE FIGHTING MEASURES

5.1. Suitable extinguishing media

- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Extinguishing media which shall not be used for safety reasons

- None

5.3. Special exposure hazards in a fire

- Not combustible

5.4. Hazardous decomposition products

- None

5.5. Special protective equipment for fire fighters

- No special precautions required

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment, and emergency procedures

6.1.1. Advice for non-emergency personnel

- Avoid dust formation.

6.1.2. Advice for emergency responders

- Sweep up to prevent slipping hazard.

6.2. Environmental precautions

- Do not flush into surface water or sanitary sewer system.
- Prevent any mixture with an acid into the sewer/drain (gas formations).

6.3. Methods and materials for containment and cleaning up

- Sweep up and shovel into suitable containers for disposal.
- Keep in properly labelled containers.
- Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

- Refer to protective measures listed in Sections 7 and 8.

7. HANDLING AND STORAGE

7.1. Handling

- Ensure adequate ventilation.
- Keep away from incompatible products.

7.2. Storage

- Store in original container.
- Keep in a dry place.

- Keep in properly labelled containers.
- Keep container closed.
- Keep away from incompatible products.

7.3. Packaging material

- Polyethylene
- Woven plastic material + PE

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Exposure Limit Values

Sodium carbonate

- US. ACGIH Threshold Limit Values
Remarks: none established
- SAEL (Solvay Acceptable Exposure Limit) 2007
TWA = 10 mg/m³

Particles not otherwise specified (PNOS)

- US. ACGIH Threshold Limit Values 2007
time weighted average = 3 mg/m³
Remarks: Respirable particles
- US. ACGIH Threshold Limit Values 2010
time weighted average = 10 mg/m³
Remarks: Inhalable particles.
- US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) 022006
Permissible exposure limit = 5 mg/m³
Remarks: respirable dust fraction, All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.
- US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) 022006
Permissible exposure limit = 15 mg/m³
Remarks: Total dust, All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.
- US. OSHA Table Z-3 (29 CFR 1910.1000) 2000
time weighted average = 15 millions of particles per cubic foot of air
Remarks: respirable dust fraction
- US. OSHA Table Z-3 (29 CFR 1910.1000) 2000
time weighted average = 50 millions of particles per cubic foot of air
Remarks: Total dust
- US. OSHA Table Z-3 (29 CFR 1910.1000) 2000
time weighted average = 5 mg/m³
Remarks: respirable dust fraction
- US. OSHA Table Z-3 (29 CFR 1910.1000) 2000
time weighted average = 15 mg/m³
Remarks: Total dust

- US. OSHA Table Z-I-A (29 CFR 1910.1000) 1989
time weighted average = 5 mg/m³
Remarks: respirable dust fraction
- US. OSHA Table Z-I-A (29 CFR 1910.1000) 1989
time weighted average = 15 mg/m³
Remarks: Total dust

ACGIH® and TLV® are registered trademarks of the American Conference of Governmental Industrial Hygienists. SAEL = Solvay Acceptable Exposure Limit, Time Weighted Average for 8 hour workdays. No Specific TLV STEL (Short Term Exposure Level) has been set. Excursions in exposure level may exceed 3 times the TLVTWA for no more than a total of 30 minutes during a workday and under no circumstances should they exceed 5 times the TLV TWA.

8.2. Engineering Controls

- Provide appropriate exhaust ventilation at places where dust is formed.
- Refer to protective measures listed in Sections 7 and 8.
- Apply technical measures to comply with the occupational exposure limits.

8.3. Personal protective equipment

8.3.1. *Respiratory protection*

- Effective dust mask.
- Use only respiratory protection that conforms to international/national standards.
- Use NIOSH approved respiratory protection.

8.3.2. *Hand protection*

- Wear suitable gloves.
- Suitable material: Neoprene, Natural Rubber

8.3.3. *Eye protection*

- Goggles

8.3.4. *Skin and body protection*

- Dust impervious protective suit
- Rubber or plastic boots
- Rubber or plastic apron

8.3.5. *Hygiene measures*

- When using do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General Information

Appearance	granules, powder
Color	white
Odor	odorless

9.2. Important health safety and environmental information

pH	11.16 Concentration: 4 g/l Temperature: 25 °C (77 °F)
	11.3 Concentration: 10 g/l Temperature: 25 °C (77 °F)
pK_a	pK _{a1} = 6.35; pK _{a2} = 10.33
Boiling point / boiling range	Remarks: not applicable
Flash point	Remarks: not applicable
Flammability	Remarks: not applicable
Explosive properties	<u>Explosion danger</u> Remarks: not applicable
Oxidizing properties	Remarks: Non oxidizer
Vapor Pressure	Remarks: negligible
Relative density / Density	2.53 Temperature: 20 °C (68 °F)
Bulk density	from 0.5 - 0.8 kg/dm ³ Method: Free flow
Solubility(ies)	= 71 g/l Remarks: Water Temperature: 0 °C (32 °F)
	= 215 g/l Remarks: Water Temperature: 20 °C (68 °F)
Partition coefficient: n-octanol / water	Remarks: not applicable
Viscosity	Remarks: not applicable
Vapor Density	Remarks: not applicable
Evaporation rate	Remarks: not applicable

9.3. Other data

Melting point / range	851 °C (1,564 °F)
Auto-flammability	Remarks: not applicable
Granulometry	80 - 100% < 160 µm
Decomposition temperature	> 400 °C (752 °F)

10. STABILITY AND REACTIVITY

10.1. Stability

- Stable under recommended storage conditions.

10.2. Conditions to avoid

- Exposure to moisture.
- Keep at temperature not exceeding: 400 °C (752 °F)

10.3. Materials to avoid

- Finely divided aluminum

10.4. Hazardous decomposition products

- None

11. TOXICOLOGICAL INFORMATION

Toxicological data

Acute oral toxicity

- LD50, rat, 2,800mg/kg

Acute inhalation toxicity

- LC50, 2 h, guinea pig, 0.8 mg/l
- LC50, 2 h, mouse, 1.2 mg/l
- LC50, 2 h, rat, 2.3 mg/l

Acute dermal irritation / corrosion

- LD50, rabbit, > 2,000 mg/kg

Skin irritation

- rabbit, No skin irritation
- Human experience, No skin irritation

Eye irritation

- rabbit, irritant effects

Carcinogenicity

- Remarks: no data available

Genetic toxicity in vitro

- In vitro tests did not show mutagenic effects

Reproductive toxicity

- Oral route (gavage), 10 days, Various species, 179 mg/kg, Did not show teratogenic effects in animal experiments.

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity effects

Acute toxicology

- Fishes, *Lepomis macrochirus*, 96 h, 300 mg/l
- Crustaceans, *Ceriodaphnia dubia*, EC60, 48 h, 200 - 227 mg/l

12.2. Mobility

- Air
Remarks: not applicable
- Water
Remarks: Solubility(ies)
- Water
Remarks: Mobility
- Soil / sediments
Remarks: not significant

12.3. Persistence and degradability

Abiotic degradation

- Water, hydrolyses
Result: acid / base equilibrium as a function of pH
Degradation products: carbonic acid / bicarbonate / carbonate

Biodegradation

- Remarks: The methods for determining the biological degradability are not applicable to inorganic substances.

12.4. Bioaccumulative potential

- Result: Does not bioaccumulate.

12.5. Other adverse effects

12.6. Remarks

- no data available

13. DISPOSAL CONSIDERATIONS

13.1. Waste from residues / unused products

- Contact waste disposal services.
- If recycling is not practicable, dispose of in compliance with local regulations.
- Dilute with plenty of water.
- Neutralise with acid.
- In accordance with local and national regulations.

13.2. Packaging treatment

- Where possible recycling is preferred to disposal or incineration.
- Clean container with water.
- Dispose of rinse water in accordance with local and national regulations.
- Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.

13.3. RCRA Hazardous Waste

- Listed RCRA Hazardous Waste (40 CFR 302) - No
- Unlisted RCRA Hazardous Waste (40 CFR 302) - No

14. TRANSPORT INFORMATION

- Sea (IMO / IMDG)
- not regulated
- Air (ICAO / IATA)
- not regulated
- U.S. Dept of Transportation
- not regulated
- It is recommended that ERG Guide number 111 be used for all non-regulated material.
- Canadian Transportation of Dangerous Goods
- not regulated

15. REGULATORY INFORMATION**15.1. Inventory Information**

Canadian Domestic Substances List (DSL)	In compliance with inventory
EU list of existing chemical substances (EINECS)	In compliance with inventory
Toxic Substance Control Act list (TSCA)	In compliance with inventory

15.2. Other Regulations

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

- not regulated.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

- no.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

- not regulated.

US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

- not regulated.

US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

- not regulated.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

- not regulated.

15.3. Classification and labelling

Canada. Canadian Environmental Protection Act (CEPA). WHMIS Ingredient Disclosure List (Can. Gaz., Part II, Vol. 122, No. 2)

- D2B - Toxic Material causing Other Toxic Effects

Remarks: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the Safety Data Sheet contains all the information required by the Controlled Products Regulations.

EC Label - According to Regulation (EC) 1272/2008, as amended

Name(s) on label

Hazardous components	Sodium carbonate
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Signal Word

Warning

Hazard Pictograms



Hazard statements

H319	Causes serious eye irritation.
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Precautionary statements

Prevention	P264	Wash hands thoroughly after handling.
	P280	Wear protective gloves / protective clothing / eye protection / face protection.
Response	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.

16. OTHER INFORMATION**Ratings:****NFPA (National Fire Protection Association)**

Health = 2 Flammability = 0 Instability = 0 Special = None

HMIS (Hazardous Material Information System)

Health = 2 Fire = 0 Reactivity = 0 PPE: Supplied by User; dependent on local conditions

Further information

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