

1. Identification

| | |
|---|------------------------------------|
| Product identifier | FRUITONE® N |
| Other means of identification | |
| SDS number | 215 |
| QAD Number | 10414 |
| Recommended use | Plant growth regulator. |
| Recommended restrictions | Keep out of the Reach of Children! |
| Product registration number | 5481-427 |
| Pest Control Products Act (Canada) | WHMIS: 14630 |

Manufacturer/Importer/Supplier/Distributor information**Manufacturer**

| | |
|-------------------------------|--|
| Company name | AMVAC Chemical Corporation |
| Address | 4100 E Washington Blvd Los Angeles, CA 90023 USA |
| Telephone | AMVAC Chemical Corp 323-264-3910 AMVAC Chemical Corp 323-268-1028 (FAX) |
| Website | www.Amvac-Chemical.com |
| E-mail | CustServ@Amvac-Chemical.com |
| Emergency phone number | Medical 888-681-4261 CHEMTREC® (USA+Canada) 800-424-9300 Product Use 888-462-6822 CHEMTREC® (Outside USA) +1-703-527-3887 |

2. Hazard(s) identification

| | |
|--|---|
| Physical hazards | Not classified. |
| Health hazards | Not classified. |
| Environmental hazards | Not classified. |
| OSHA defined hazards | Combustible dust |
| Label elements | |
| Hazard symbol | None. |
| Signal word | None. |
| Hazard statement | May be harmful if swallowed or in contact with skin. |
| Precautionary statement | |
| Prevention | Observe good industrial hygiene practices. |
| Response | Wash hands after handling. |
| Storage | Store away from incompatible materials. |
| Disposal | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Hazard(s) not otherwise classified (HNOC) | None known. |

Supplemental information

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

HAZARDS TO HUMANS AND DOMESTIC ANIMALS.

CAUTION. Harmful if absorbed through the skin or eyes, swallowed or inhaled. Avoid breathing vapor or spray mist. Avoid contact with eyes, skin, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Do not contaminate irrigation ditches or water used for irrigation or domestic purposes. Do not apply when weather conditions favor drift from areas treated. Do not use in a greenhouse.

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|---------------------------------------|--------------------------|------------|-----|
| 1-Naphthaleneacetic acid, sodium salt | | | 3.5 |

4. First-aid measures

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed

Treat symptomatically.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Not applicable, non-combustible.

Unsuitable extinguishing media

Not applicable, non-combustible.

Specific hazards arising from the chemical

Not applicable.

Special protective equipment and precautions for firefighters

None (non-combustible).

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Avoid the generation of dusts during clean-up. Wear appropriate protective equipment and clothing during clean-up. Disperses in water. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Vacuum up or use a scoop to transfer the spilled material to containers for reuse or disposal. Clean surface thoroughly to remove residual contamination. Dispose of cleanup materials as hazardous waste.

Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage**Precautions for safe handling****Conditions for safe storage, including any incompatibilities**

Observe good industrial hygiene practices.

Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

| Components | Type | Value | Form |
|---------------|------|---|-------------------------------------|
| Nuisance dust | PEL | 5 mg/m ³ 15 mg/m ³ | Respirable fraction. Total dust. |
| | | | |

US. ACGIH Threshold Limit Values

| Components | Type | Value |
|---------------|------|----------------------|
| Nuisance dust | TWA | 10 mg/m ³ |

US. NIOSH: Pocket Guide to Chemical Hazards

| Components | Type | Value | Form |
|---------------|------|---|----------------------|
| Nuisance dust | TWA | 5 mg/m ³ 10 mg/m ³ | Respirable. Total |

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

General ventilation normally adequate.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Use tight fitting goggles if dust is generated.

Skin protection

Hand protection For prolonged or repeated skin contact use suitable protective gloves.

Other Long-sleeved shirt and long pants or coveralls, socks and closed toe shoes are required.

Respiratory protection

No personal respiratory protective equipment normally required. Wear a dust mask if dust is generated above exposure limits.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance**

White powder

Physical state

Solid.

Form

Powder.

Color

White

Odor

Dusty odor

Odor threshold

Not established

pH

8 - 9 (5% slurry)

Melting point/freezing point

Not determined

Initial boiling point and boiling range

Not applicable

Flash point

Not available.

Evaporation rate

Not applicable

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not applicable

Vapor density Not applicable

Relative density Not available.

Solubility(ies)

Solubility (water) Disperses

Partition coefficient (n-octanol/water) Not determined

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Bulk density 15.5 lb/ft³

Dust explosion properties

Kst > 4 bar.m/s

Minimum explosive concentration (MEC) > 40 g/m³

Percent volatile Not applicable

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation No adverse effects due to inhalation are expected.

Skin contact No adverse effects due to skin contact are expected.

Eye contact Direct contact with eyes may cause temporary irritation.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

| Product | Species | Test Results |
|--|---------|-----------------------------------|
| FRUITONE® N <u>acute</u> <u>dermal</u> LD50 | rabbit | > 5000 mg/kg for this formulation |

| Product | Species | Test Results |
|--|--|---|
| inhalation | | |
| LC50 | rat | > 273.5 mg/L for this formulation |
| oral | | |
| LD50 | rat | > 10000 mg/kg for this formulation |
| Components | Species | Test Results |
| 1-Naphthaleneacetic acid, sodium salt | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg , 1-NAANa (Toxicity Category III) |
| Inhalation | | |
| LC50 | Rat | > 5 mg/l, 4 Hours , 1-NAANa (Toxicity Category IV) |
| Oral | | |
| LD50 | Rat | 1098 mg/kg . 1-NAANa (Toxicity Category III) |
| * Estimates for product may be based on additional component data not shown. | | |
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. | |
| Irritation Corrosion - Skin | | |
| FRUITONE® N | | , No evidence of irritation (1-NAA.Na) Result: none Species: rabbit Organ: skin |
| 1-Naphthaleneacetic acid, sodium salt | | , No skin irritation, 1-NAANa (Tox Cat IV). |
| Serious eye damage/eye irritation | Direct contact with eyes may cause temporary irritation. | |
| Irritation Corrosion - Eye | | |
| FRUITONE® N | | , Non irritant (1-NAA.Na) Result: none Species: rabbit Organ: eye |
| 1-Naphthaleneacetic acid, sodium salt | | , Corrosive, 1-NAANa (Tox Cat I). |
| Respiratory or skin sensitization | | |
| Respiratory sensitization | Not a respiratory sensitizer. | |
| Skin sensitization | Not a sensitizer. | |
| Skin sensitization | | |
| FRUITONE® N | | , No evidence of sensitization potential Result: none Organ: skin |
| 1-Naphthaleneacetic acid, sodium salt | | , Not a sensitizer, 1-NAANa. Species: Guinea pig |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. | |
| Carcinogenicity | | |
| FRUITONE® N | | , No evidence of carcinogenicity when tested in the rat or mouse (1-NAA.Na) Result: none Species: rat , mouse |
| OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) | | |
| Not listed. | | |
| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. | |
| Specific target organ toxicity - single exposure | Not classified. | |
| Specific target organ toxicity - repeated exposure | Not classified. | |
| Aspiration hazard | Not an aspiration hazard. | |

12. Ecological information

| | |
|--------------------------------------|--|
| Ecotoxicity | The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. |
| Persistence and degradability | No data is available on the degradability of this product. |
| Bioaccumulative potential | No data available. |
| Mobility in soil | No data available. |

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

| | |
|--|--|
| Disposal instructions | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. |
| Local disposal regulations | Dispose in accordance with all applicable regulations. |
| Hazardous waste code | The waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| Waste from residues / unused products | Dispose of in accordance with all applicable regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| Contaminated packaging | Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with all applicable regulations. |

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

15. Regulatory information

US federal regulations

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. This product is currently registered under EPA/FIFRA Regulations. it is a violation of Federal law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.**US state regulations****US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

US. Massachusetts RTK - Substance List

Nuisance dust (CAS Proprietary)

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Nuisance dust (CAS Proprietary)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | No |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision**Issue date**

05-11-2015

References

ACGIH®: American Conference of Governmental Industrial Hygienists

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

EPA: Environmental Protection Agency

FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act

IARC: International Agency for Research on Cancer

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Agency

SARA: Superfund Amendments and Reauthorization Act

TSCA: Toxic Substances Control Act

DOT: Department of Transportation

IMDG: International Maritime Dangerous Goods

IATA: International Air Transport Association

Version #

01

Further information

Not available.

HMIS® ratings

Health: 0

Flammability: 2

Physical hazard: 0

NFPA ratings

Health: 0

Flammability: 2

Instability: 0

Disclaimer

AMVAC Chemical Corporation cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. This information is provided for the limited guidance to the user. While AMVAC believes that the information is, as of the date hereof, reliable, it is the user's responsibility to determine the suitability of the information for its purposes. The user is advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional, or variable conditions or circumstances exist (like combinations with other materials), or because of applicable regulations. No express or implied warranty of merchantability or fitness for a particular purpose or otherwise is made hereunder with respect to the information or the product to which the information relates.

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Revision Information

Product and Company Identification: Product and Company Identification

Composition / Information on Ingredients: Ingredients

Physical & Chemical Properties: Multiple Properties

HazReg Data: International Inventories