





Product Name: Amplite® Fluorimetric Sodium Ion Quantification Kit

Catalog Number: 21325

Chemical Name	CAS#	EINECS#	Appearance	Water Solubility
Component A: SoNa™ 520	N/A	N/A	Solid	Moderate
Component B: Assay Buffer	N/A	N/A	Liquid	High
Component C: NaCl Standard	N/A	N/A	Solid	High
Component D: DMSO	67-68-5	N/A	Liquid	High

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Safety Data Sheet

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name: Amplite® Fluorimetric Sodium Ion Quantification Kit

Product number: 21325

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: For research use only. Not intended for diagnostic or therapeutic use.

1.3 Details of the supplier of the datasheet

Company: AAT Bioquest, Inc.

Address: 5775 W Las Positas Blvd, Pleasanton, CA 94588

Telephone: (408)-733-1055

Fax: (408)-733-1304

Email: info@aatbio.com

1.4 Emergency telephone number

Chemtrec (Within USA): 1-(800)-424-9300 Chemtrec (Outside USA): 1-(703)-527-3887

Section 2: Hazard identifications

2.1 Classification of the substance or mixture

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

2.2 Label elements

Signal word: Not applicable

Hazard statements: None Symbols/Pictograms: None

Precautionary statements - prevention: Wash hands thoroughly after handling

Precautionary statements - response: IF exposed concerned: Get medical advice/attention

Precautionary statements - storage: None
Precautionary statements - disposal: None

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Hazards not otherwise classified (HNOC): None

2.4 Other information

Other hazards: None

Section 3: Composition/information on ingredients

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3.1 Substances

Chemical name: Amplite® Fluorimetric Sodium Ion Quantification Kit

CAS No.:

Molecular weight: 720.72

Formula:

Section 4: First aid measures

4.1 First-aid measures

General advice: If symptoms persist, call a physician. Do not breathe

dust/fume/gas/mist/vapors/spray. Do not get in eyes, on the skin, or on

clothing.

Eye contact: Immediately flush with plenty of water. After initial flushing, remove any

contact lenses and continue flushing for at least 15 minutes. Keep eye

wide open while rinsing. If symptoms persist, call a physician.

Skin contact: Consult a physician if necessary. Wash off immediately with soap and

plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water. Immediate medical

attention is not required.

Inhalation: Remove to fresh air If breathing is irregular or stopped, administer

artificial respiration. Avoid direct contact with skin. Use a barrier to give mouth-to-mouth resuscitation. Artificial respiration and/or oxygen may be necessary. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist,

call a physician.

Ingestion: Do NOT induce vomiting. Rinse/clean mouth with water and drink plenty

of water afterward. Never give anything by mouth to an unconscious

person. Consult a physician.

Self-protection of the first aider:

Use personal protective equipment.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Note to physicians: Treat symptomatically.

Section 5: Firefighting measures

5.1 Suitable extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Unsuitable extinguishing media: No information available.

5.2 Specific hazards arising from the chemical

Specific hazards arising from the chemical: In the event of a fire and/or explosion, do not breathe fumes. May cause

sensitization by inhalation and skin contact. Thermal decomposition can

lead to the release of irritating and toxic gases and vapors.

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Hazardous combustion products: Carbon oxides, sulfur oxides

5.3 Explosion data

Sensitivity to mechanical impact: No information available.

Sensitivity to static discharge: No information available.

5.4 Protective equipment and precautions for firefighters

Protective equipment and precautions for

firefighters:

As in any fire, wear self-contained breathing apparatus pressuredemand, MSHA/NIOSH (approved or equivalent), and full protective

gear.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

Personal precautions: Use personal protective equipment as required. Keep people away from

and upwind of spill/leak. Evacuate personnel to safe areas.

6.2 Environmental precautions

Environmental precautions: Prevent further leakage or spillage if safe to do so. Prevent product

from entering drains. Do not flush into surface water or sanitary sewer

system. See Section 12 for additional Ecological Information.

6.3 Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so. Cover powder spill

with a plastic sheet or tarp to minimize spreading. Dike far ahead of

liquid spill for later disposal.

Methods for cleaning up: Use personal protective equipment as required. Cover powder spill with

a plastic sheet or tarp to minimize spreading and keep the powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surfaces thoroughly. Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for

disposal. After cleaning, flush away traces with water. Take

precautionary measures against static discharges.

Section 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: Avoid contact with skin, eyes, or clothing. Use personal protective

equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions: Keep the container tightly closed in a dry and well-ventilated place. Keep

out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. May form

explosive peroxides.

Incompatible materials: None known based on information supplied.

Section 8: Experimental controls/personal protection

8.1 Control parameters

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Exposure guidelines: This product, as supplied, does not contain any hazardous materials

with occupational exposure limits established by the region-specific

regulatory bodies.

8.2 Appropriate engineering controls

Engineering controls: Showers, eyewash stations, ventilation systems

8.3 Individual protection measures, such as personal protective equipment

Eye/face protection: Tight sealing safety goggles. Face protection shield.

Skin and body protection: Wear protective gloves and protective clothing.

Respiratory protection: If exposure limits are exceeded, or irritation is experienced,

> NIOSH/MSHA approved respiratory protection should be worn. Positivepressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in

accordance with current local regulations.

When using, do not eat, drink or smoke. Regular cleaning of equipment, General hygiene considerations:

No information available

No information available

No information available

No information available

work area, and clothing is recommended. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling. Keep away from

food, drink, and animal feeding stuff.

Section 9: Physical and chemical properties

Vapor pressure:

Water solubility:

Physical state: Solid

Solubility in water: Moderate

Appearance: No information available

Odor/odor threshold: No information available

No information available pH:

Melting point/freezing point:

Boiling point: Flashpoint: No information available

Liquid density: No information available

Evaporation rate: No information available

Upper flammability limit: No information available

Lower flammability limit: No information available

Vapor density: No information available

Specific gravity: No information available

Solubility in other solvents: No information available

Partition coefficient: No information available

Autoignition temperature: No information available

Decomposition temperature: No information available

No information available Viscosity:

Explosive properties: No information available

Oxidizing properties: No information available

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Section 10: Stability and reactivity

Reactivity: No data available

Chemical stability: May form explosive peroxides

Possibility of hazardous reactions: None under normal processing

Hazardous polymerization: No information available

Conditions to avoid: Extremes of temperatures and direct sunlight

Incompatible materials: Strong oxidizing agents

Hazardous decomposition products: Carbon oxides

Section 11: Toxicological information

11.1 Information on likely routes of exposure

Inhalation:

Eye contact:

No data available

11.2 Information on toxicological effects

Symptoms: No information available

11.3 Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity: Repeated contact may cause allergic reactions in very susceptible

persons. Avoid repeated exposure.

11.4 Numerical measures of toxicity - product information

Unknown acute toxicity:

No information available

Section 12: Ecological information

Ecotoxicity: May cause long-lasting harmful effects to aquatic life.

Persistence and degradability: No information available
Bioaccumulation: No information available
Mobility: No information available

Section 13: Disposal consideration

Disposal of wastes: Disposal should be in accordance with applicable regional, national and

local laws and regulations.

Contaminated packaging: Do not reuse container

Other information: Waste codes should be assigned by the user based on the application

for which the product was used.

Section 14: Transport information

DOT: Not regulated IMDG: Not regulated IATA: Not regulated

Section 15: Regulatory information

15.1 International Inventories

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US Toxic Substances Control Act (TSCA): Not listed Canada (DSL/NDSL): Not listed Europe (EINECS/ELINCS/NLP): Not listed Australia (AICS): Not listed South Korea (KECL): Not listed China (IECSC): Not listed Not listed Japan (ENCS): Phillipines (PICCS): Not listed

15.2 US Federal Regulations

SARA 313: Not listed SARA 311/312 components: Not listed

CWA (Clean Water Act): This product does not contain any substances regulated as pollutants

pursuant to the Clean Water Act (40 CFR122.21 and 40CFR 122.42).

15.3 US State Regulations

California Proposition 65:

Massachusetts-RTK:

Not listed

New Jersey-RTK:

Not listed

Pennsylvania-RTK:

Not listed

U.S. State Right-To-Know Regulations: This product does not contain any substances regulated by state right-

to-know regulations.

Section 16: Other information

16.1 HMIS

Health hazards: - Flammability: -

Reactivity:

Personal protection:

16.2 NFPA

Health hazards:-Flammability:-Stability:-

16.3 Further information

Physical and chemical properties:

This material is sold for research purposes only and is not required to appear on the TSCA inventory. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Users should make independent decisions regarding the completeness of the information based on all sources available. AAT Bioquest shall not be held liable for any damage resulting from handling or from contact with the above product.

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Safety Data Sheet

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name: DMSO
Product number: N/A

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: For research use only. Not intended for diagnostic or therapeutic use.

1.3 Details of the supplier of the datasheet

Company: AAT Bioquest, Inc.

Address: 5775 W Las Positas Blvd, Pleasanton, CA 94588

Telephone: (408)-733-1055

Fax: (408)-733-1304

Email: info@aatbio.com

1.4 Emergency telephone number

Chemtrec (Within USA): 1-(800)-424-9300 Chemtrec (Outside USA): 1-(703)-527-3887

Section 2: Hazard identifications

2.1 Classification of the substance or mixture

Flammable liquids Category 4
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A

2.2 Label elements

Signal word: Warning

Hazard statements: H227 - Combustible liquid

H315 - Causes skin irritation

H319 - Causes serious eye irritation

Symbols/Pictograms:



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Precautionary statements - prevention: Keep away from heat, hot surface, sparks, open flames and other

ignition sources. No smoking.

Wear protective gloves/protective clothing/eye protection/face

protection/hearing protection.

Wash hands... thoroughly after handling.

Wash hands... thoroughly after handling. Do not touch eyes.

Precautionary statements - response: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to

extinguish.

IF ON SKIN: wash with plenty of water. Specific treatment (see on this label). If skin irritation occurs: Get medical help.

Take off contaminated clothing and wash it before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses if present and easy to do - continue rinsing.

If eye irritation persists: Get medical help.

Precautionary statements - storage: Store in a well-ventilated place.

Precautionary statements - disposal: Dispose of contents/container in accordance with

local/regional/national/international regulation.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Hazards not otherwise classified (HNOC): None

2.4 Other information

Other hazards: None

Section 3: Composition/information on ingredients

3.1 Substances

Chemical name: DMSO
CAS No.: 67-68-5

Molecular weight:

Formula: C2H6OS

Section 4: First aid measures

4.1 First-aid measures

General advice: If symptoms persist, call a physician. Do not breathe

dust/fume/gas/mist/vapors/spray. Do not get in eyes, on the skin, or on

clothing.

Eye contact: Immediately flush with plenty of water. After initial flushing, remove any

contact lenses and continue flushing for at least 15 minutes. Keep eye

wide open while rinsing. If symptoms persist, call a physician.

Skin contact: Consult a physician if necessary. Wash off immediately with soap and

plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water. Immediate medical

attention is not required.

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Inhalation: Remove to fresh air If breathing is irregular or stopped, administer

artificial respiration. Avoid direct contact with skin. Use a barrier to give mouth-to-mouth resuscitation. Artificial respiration and/or oxygen may be necessary. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist,

call a physician.

Ingestion: Do NOT induce vomiting. Rinse/clean mouth with water and drink plenty

of water afterward. Never give anything by mouth to an unconscious

person. Consult a physician.

Self-protection of the first aider: Use personal protective equipment.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Note to physicians: Treat symptomatically.

Section 5: Firefighting measures

5.1 Suitable extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Unsuitable extinguishing media: No information available.

5.2 Specific hazards arising from the chemical

Specific hazards arising from the chemical: In the event of a fire and/or explosion, do not breathe fumes. May cause

sensitization by inhalation and skin contact. Thermal decomposition can

lead to the release of irritating and toxic gases and vapors.

Hazardous combustion products: Carbon oxides, sulfur oxides

5.3 Explosion data

Sensitivity to mechanical impact: No information available.

Sensitivity to static discharge: No information available.

5.4 Protective equipment and precautions for firefighters

Protective equipment and precautions for

firefighters:

As in any fire, wear self-contained breathing apparatus pressuredemand, MSHA/NIOSH (approved or equivalent), and full protective

gear.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

Personal precautions: Use personal protective equipment as required. Keep people away from

and upwind of spill/leak. Evacuate personnel to safe areas.

6.2 Environmental precautions

Environmental precautions: Prevent further leakage or spillage if safe to do so. Prevent product

from entering drains. Do not flush into surface water or sanitary sewer

system. See Section 12 for additional Ecological Information.

6.3 Methods and material for containment and cleaning up

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Methods for containment: Prevent further leakage or spillage if safe to do so. Cover powder spill

with a plastic sheet or tarp to minimize spreading. Dike far ahead of

liquid spill for later disposal.

Methods for cleaning up: Use personal protective equipment as required. Cover powder spill with

a plastic sheet or tarp to minimize spreading and keep the powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surfaces thoroughly. Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for

disposal. After cleaning, flush away traces with water. Take

precautionary measures against static discharges.

Section 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: Avoid contact with skin, eyes, or clothing. Use personal protective

equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions: Keep the container tightly closed in a dry and well-ventilated place. Keep

out of the reach of children. Keep in properly labeled containers. May

form explosive peroxides. Store under inert gas. Hygroscopic.

Incompatible materials: None known based on information supplied.

Section 8: Experimental controls/personal protection

8.1 Control parameters

Exposure guidelines: This product, as supplied, does not contain any hazardous materials

with occupational exposure limits established by the region-specific

regulatory bodies.

8.2 Appropriate engineering controls

Engineering controls: Showers, eyewash stations, ventilation systems

8.3 Individual protection measures, such as personal protective equipment

Eye/face protection: Tight sealing safety goggles. Face protection shield.

Skin and body protection: Wear protective gloves and protective clothing.

Respiratory protection: If exposure limits are exceeded, or irritation is experienced,

NIOSH/MSHA approved respiratory protection should be worn. Positivepressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in

accordance with current local regulations.

General hygiene considerations: When using, do not eat, drink or smoke. Regular cleaning of equipment,

work area, and clothing is recommended. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling. Keep away from

food, drink, and animal feeding stuff.

Section 9: Physical and chemical properties

Physical state: No information available

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Solubility in water:

Appearance:

No information available

No information available

Odor/odor threshold: Odorless

pH: 8.5 (50/50 in water)

Melting point/freezing point: $18 \, ^{\circ}\text{C} \, (64 \, ^{\circ}\text{F})$ Boiling point: $189 \, ^{\circ}\text{C} \, (372 \, ^{\circ}\text{F})$

Flashpoint: 89 °C (192 °F) Closed Cup, 95 °C (203 °F) Open Cup

Liquid density: 1.1 g/mL

Evaporation rate: No information available

Upper flammability limit: 28.5% (V)

Lower flammability limit: 3.0% - 3.5% (V)

Vapor pressure: 0.55 mbar (0.46 mmHg) at 20 °C (68 °F)

Vapor density: 2.70 - (Air = 1.0)

Specific gravity: 1.1 at 20 °C (68 °F) (water = 1)

Water solubility: Completely miscible

Solubility in other solvents: No information available

Partition coefficient: -2.03 (log Pow)

Autoignition temperature: 300 - 302 °C (572 - 576 °F) at 1,013 hPa

Decomposition temperature: >190 °C (>374 °F)

Viscosity: 2.0 mPas or cP at 25 °C (77 °F)

Explosive properties: Product does not present an explosion hazard.

Oxidizing properties: The substance or mixture is not classified as oxidizing.

Section 10: Stability and reactivity

Reactivity: Hazardous Polymerization will not occur.

Chemical stability: The product is chemically stable under standard ambient conditions

(room temperature).

Possibility of hazardous reactions: None under normal processing

Hazardous polymerization:

No information available

Conditions to avoid: Avoid heat, flames, and sparks. Prolonged heating above 150°C (302°F)

can cause rapid, exothermic decomposition.

Incompatible materials: Organic and inorganic acid chlorides, strong oxidizing agents, alkali

metals, hydrobromic acid, acidic solutions of alkali bromides.

Hazardous decomposition products: Sulfur dioxide, formaldehyde, methyl mercaptan, dimethyl sulfide,

dimethyl disulfide, and bis (methylthio) methane.

Section 11: Toxicological information

11.1 Information on likely routes of exposure

Inhalation: No data available

Eye contact: No data available

Skin contact: Acute dermal toxicity (LD50): 40000 mg/kg [Rat]. Ingestion: Acute oral toxicity (LD50): 7920 mg/kg [Mouse].

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11.2 Information on toxicological effects

Symptoms: No information available

11.3 Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity: Repeated contact may cause allergic reactions in very susceptible

persons. Avoid repeated exposure.

11.4 Numerical measures of toxicity - product information

Unknown acute toxicity:

No information available

Section 12: Ecological information

Ecotoxicity: Toxicity to fish LC50 – Pimephales promelas (Fathead minnow) – 34,000

mg/L-96h

Persistence and degradability: Result: 31 % - According to the results of tests of biodegradability this

product is not readily biodegradable. (OECD Test Guideline 301D)

Bioaccumulation: No information available

Mobility: No information available

Section 13: Disposal consideration

Disposal of wastes: Disposal should be in accordance with applicable regional, national and

local laws and regulations. Do not allow product to reach ground water,

water course, or sewage system.

Contaminated packaging: Do not reuse container

Other information: Waste codes should be assigned by the user based on the application

for which the product was used.

Section 14: Transport information

DOT: Not a DOT controlled material.

IMDG: Not regulated IATA: Not regulated

Section 15: Regulatory information

15.1 International Inventories

US Toxic Substances Control Act (TSCA): Listed

Canada (DSL/NDSL): Not listed Europe (EINECS/ELINCS/NLP): Not listed

Australia (AICS):

South Korea (KECL):

Not listed

China (IECSC): Not listed

Japan (ENCS): Not listed

15.2 US Federal Regulations

Phillipines (PICCS):

SARA 313: This material does not contain any chemical components with known

Not listed

CAS numbers that exceed the threshold (De Minimis) reporting levels

established by SARA Title III, Section 313.

SARA 311/312 components: Fire Hazard, Chronic Health Hazard

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CWA (Clean Water Act): This product does not contain any substances regulated as pollutants

pursuant to the Clean Water Act (40 CFR122.21 and 40CFR 122.42).

15.3 US State Regulations

California Proposition 65: This product does not contain any chemicals known to State of

California to cause cancer, birth defects, or any other reproductive

harm.

Massachusetts-RTK: No components are subject to the Massachusetts Right to Know Act.

New Jersey-RTK: Dimethyl sulfoxide

Pennsylvania-RTK: Dimethyl sulfoxide

U.S. State Right-To-Know Regulations: This product does not contain any substances regulated by state right-

to-know regulations.

Section 16: Other information

16.1 HMIS

Health hazards:

Flammability: 2

Reactivity: -

Personal protection: -

16.2 NFPA

Health hazards:

Flammability: 2

Stability: -

Physical and chemical properties: -

16.3 Further information

This material is sold for research purposes only and is not required to appear on the TSCA inventory. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Users should make independent decisions regarding the completeness of the information based on all sources available. AAT Bioquest shall not be held liable for any damage resulting from handling or from contact with the above product.

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