Safety Data Sheet

SECTION I: Product and Company Identification

1.1 Product identifiers

Product name: HF511 Cell Culture Feed
Product Number: C1603
Brand: MEDNA

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

Identified uses: For research use.

1.3 Details of the supplier of the safety data sheet

Company : MEDNA Scientific, Inc.
9160 Sterling Street, Suite 110
Irving, TX 75063
Office: 469-250-4424

Emergency phone number: 469-250-4424

SECTION II: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

2.2 GHS Label elements, including precautionary statements

Not dangerous.

2.3 Other hazards

No additional information available.

SECTION III: Composition/information on ingredients

No ingredients are hazardous according to OSHA criteria.

CAS#	Chemical Name	EC. Number
----	Component 1	----
----	Component 2	----
----	Component 3	----
----	Component 4	----

SECTION IV: First aid measures

4.1 Description of first aid measures

If inhaled

Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention

In case of skin contact
Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
In case of eye contact
Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.
If swallowed
Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2 Important Symptoms and Effects, Both Acute and Delayed:
To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed
Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION V: Firefighting measures

5.1 Flammable properties
Not flammable.
5.2 Flash point
Not determined.
5.3 Suitable extinguishing media
Use water spray, dry chemical, carbon dioxide, or appropriate foam.
Unsuitable extinguishing media
None known
5.4 Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear to prevent contact with skin and eyes. Keep upwind of fire.
5.5 Special hazards arising from the substance or mixture
Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides

SECTION VI: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Avoid breathing vapors and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
6.2 Environmental precautions
Prevent material from entering drains and water courses.
6.3 Methods and materials for containment and cleaning up
Contain spill and collect, as appropriate.
Transfer to a chemical waste container for disposal in accordance with local regulations

SECTION VII: Handling and storage

7.1 Precautions for safe handling

Use with adequate ventilation. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale.

7.2 Conditions for safe storage, including any incompatibilities

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

SECTION VIII: Exposure controls/personal protection

8.1 Control parameters

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

8.2 Exposure controls

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits

Personal protective equipment

Eye/face protection

Safety glasses or goggles are recommended when handling product.

Skin and body protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection

Not normally needed. In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental exposure controls

Maintain levels below Community environmental protection thresholds

Other information

Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION IX: Physical and chemical properties

9.1 Basic physical and chemical properties

a) Appearance Form: Colorless
b) Odor: No data available
c) Odor threshold: No information available
d) pH: No information available.
e) Physical state at 20 degrees C: Liquid
f) Flash point: No information available
g) Decomposition temperature: No information available.
h) Flammability limits in air: No information available.
i) Explosion limits: No information available.
j) Specific gravity: No information available.

k) Solubility: No information available.
l) Evaporation rate: No information available
m) Vapor Pressure @20°C (kPa): No information available
n) Vapor density: No data available
o) VOC Content(%): Not applicable

9.2 Other safety information

No data available

SECTION X: Stability and reactivity

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Light sensitive.

10.3 Possibility of hazardous reactions

Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.

10.4 Conditions to avoid

Incompatible materials, light, dust generation, excess heat.

10.5 Incompatible materials

Strong oxidizers.

10.6 Hazardous decomposition products

Carbon monoxide, carbon dioxide, nitrogen oxides. Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides.

SECTION XI: Toxicological information

Component 2:

Acute toxicity:
LD50 Oral - Rat - female - > 2,000 mg/kg
(OECD Test Guideline 423)
LC50 Inhalation - Rat - male and female - 4 h - > 5.4 mg/l
(OECD Test Guideline 403)
Dermal: No data available
No data available

Skin corrosion/irritation
Skin - Rabbit
Result: No skin irritation - 4 h
(OECD Test Guideline 404)

Serious eye damage/eye irritation
Eyes - Rabbit
Result: No eye irritation
(OECD Test Guideline 405)

Respiratory or skin sensitization
Local lymph node assay (LLNA) - Mouse
Result: negative

(OECD Test Guideline 429)
Germ cell mutagenicity
In vitro mammalian cell gene mutation test
mouse lymphoma cells
Result: negative
Chromosome aberration test in vitro
Chinese hamster ovary cells
Result: negative
Ames test
Escherichia coli/Salmonella typhimurium
Result: negative
Germ cell mutagenicity
In vitro mammalian cell gene mutation test
mouse lymphoma cells
Result: negative
Chromosome aberration test in vitro
Chinese hamster ovary cells
Result: negative
Ames test
Escherichia coli/Salmonella typhimurium
Result: negative
Additional Information
Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - No observed adverse effect level - 600 mg/kg
Subchronic toxicity
RTECS: NR4705000
The levorotary (l) forms of component 3 and component 2 have been found to have tumor-promoting activity for bladder carcinomas.
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Component 3:

Acute toxicity:
LD50 Oral - Rat – male and female - > 2,000 mg/kg
(OECD Test Guideline 423)
LC50 Inhalation – No data available
Dermal: No data available
No data available
Skin corrosion/irritation
Skin - Rabbit
Result: No skin irritation - 4 h
(OECD Test Guideline 404)
Remarks: (in analogy to similar products)
Serious eye damage/eye irritation
Eyes - Rabbit
Result: No eye irritation

(OECD Test Guideline 405)
Remarks: (in analogy to similar products)
Respiratory or skin sensitization
Local lymph node assay (LLNA) - Mouse
Result: negative
(OECD Test Guideline 429)
Remarks: (in analogy to similar products)
Germ cell mutagenicity
Ames test
Escherichia coli/Salmonella typhimurium
Result: negative
(ECHA)
In vitro mammalian cell gene mutation test
mouse lymphoma cells
Result: negative
(in analogy to similar products)

Additional Information
Component 2
Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - No observed adverse effect level - 600 mg/kg
Subchronic toxicity
RTECS: NR4705000
Component 3
Repeated dose toxicity - Rat - male and female - Oral - 90 d - No observed adverse effect level - 3,330 - 3,840 mg/kg
Subchronic toxicity
RTECS: Not available

The levorotary (l) forms of component 3 and component 2 have been found to have tumor-promoting activity for bladder carcinomas.
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION XII: Ecological information

12.1 Toxicity

Component 2:
Toxicity to fish semi-static test LC50 - Danio rerio (zebra fish) - > 10,000 mg/l – 96 h
(OECD Test Guideline 203)
Toxicity to algae static test ErC50 - Scenedesmus capricornutum (fresh water algae) - > 10,000 mg/l - 71.5 h
(OECD Test Guideline 201)
This product is not expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.
Component 3:

Toxicity to fish semi-static test LC50 - Danio rerio (zebra fish) - > 10,000 mg/l – 96 h
(OECD Test Guideline 203)
Remarks: (in analogy to similar products)
Toxicity to daphnia and other aquatic invertebrates
static test EC50 - Daphnia magna (Water flea) - > 10,000 mg/l – 24 h
(OECD Test Guideline 202)
Remarks: (in analogy to similar products)
Toxicity to bacteria static test EC10 - Pseudomonas putida - > 9,900 mg/l - 16 h
(DIN 38421 TEIL 8)
Remarks: (in analogy to similar products)

12.2 Persistence and degradability

Component 3

Biodegradability aerobic - Exposure time 28 d
Result: 83 % - Readily biodegradable.
(OECD Test Guideline 301F)
Remarks: (in analogy to similar compounds)

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.6 Other adverse effects

No data available

SECTION XIII: Disposal considerations

13.1 Waste treatment methods

Product

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation

Contaminated packaging

Do not reuse empty containers.

SECTION XIV: Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

RID/ADR

Not regulated.

SECTION XV: Regulatory information

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

TSCA (Toxic Substances Control Act): Not applicable
SARA302: Not applicable
SARA313: Not applicable
SARA311/312: Not applicable
CERCLA Reportable Quantity: Not applicable
California Proposition 65: Not applicable
Massachusetts Right To Know Components Component 1
Pennsylvania Right To Know Components Component 1, Component 2, Component 3

New Jersey Right To Know Components Component 1, Component 2, Component 3

15.2. Chemical safety assessment

A Chemical Safety Assessment has not been made for this product.

SECTION XVI: Other information

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product regarding appropriate safety precautions. It does not represent any guarantee of the properties of the product. MEDNA Scientific shall not be held liable for any damage resulting from handling or from contact with the above product.