

Material Safety Data Sheet

Version 2.0
Date 06/08/2018**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : NHS beads (FG beads)
 Product uses : For in vitro research use
 Physical state : Suspension
 Company : Tamagawa Seiki Co., Ltd.
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2. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical characterization: Substances****CAS No. Description:**

67-63-0 2-Propanol

Chemical characterization: Mixtures**Description:** Mixture of substances listed below with nonhazardous additions.

Components:		
67-63-0	2-Propanol	99%

3. HAZARDS IDENTIFICATION**Hazard pictograms****Signal ward** Danger**Hazard statements**

Highly flammable liquid and vapor

Causes serious eye irritation

May cause respiratory irritation

Suspected of damaging fertility or the unborn child

Causes damage to the following organs: central nervous system, systemic toxicity

Causes damage to the following organs through prolonged or repeated exposure: blood system

May cause damage to the following organs through prolonged or repeated exposure:
respiratory system, liver, spleen**Precautionary statements**

In case of inadequate ventilation wear respiratory protection.

Avoid breathing dust/fume/gas/mist/vapors/spray.

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

Specific treatment (see on this label).

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

Not applicable.

4. FIRST AID MEASURES

After inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Get medical advice/attention.

After skin contact:

Gently wash the skin immediately. Get medical advice/attention. Remove/Take off all contaminated clothing. Wash the clothing before re-use.

After eye contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinse since then. If symptoms persist, get medical advice/attention.

After swallowing:

Get medical advice/attention.

Rinse mouth with water.

Most important symptoms and effects, both acute and delayed:

At high concentrations of exposure, cause irritation eyes, nose, throat.

Causes drowsiness, headache, incoordination.

Long-term exposure to the skin, it is degreasing, causes drying, cracking, dermatitis.

Protection of first-aiders:

Watch out the fire. Wear a gas mask for an organic solvent, if any.

Special information for doctor:

No information

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Small Fires: CO₂, dry chemical, water spray or alcohol-resistant foam.

Large Fires: Water spray, alcohol-resistant foam.

Unsuitable extinguishing media: Straight streams

Special hazards arising:

Very burnable, easily ignite with heat, sparks and flames.

The container may explode if heated.

Fire may cause irritating, toxic, or corrosive gases.

High flammable liquid and vapor.

Specific extinguishing method:

If there is a possibility that the fire may spread by water spray, fire extinguishing media shown above should use appropriate fire extinguishing media other than water spray.

Extremely low flash point: In large fire where there is no fire extinguishing effect other than water spray, water is sprayed.

Move containers from fire area if it can be done without risk, if not possible, apply water from a safe distance to cool and protect surrounding area.

Even after extinguishing fire, use a large amount of water to cool the container sufficiently.

Specific protective equipment for firefighters:

When extinguishing fire, be sure to appropriate breathing apparatus and proactive equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Do not touch or walk through spilled material.

Isolate the appropriate distance as leakage area immediately in all directions.

Evacuate non-essential personal.

For avoid eye, skin contact and the inhalation of gas, wear proper protective equipment according to [8. Exposure controls/personal protection].

Wear the high sealing performance and impermeable protective clothing, if the fire does not occur by leakage.

Do not touch damaged container and spillage if you do not wear proper clothes.

Stay upwind.

Keep out of low areas.

Ventilate closed spaces before entering.

Environmental precautions:

Attention should be given not to cause damage to the environment by flowing of spillage to rivers.

Do not release into the environment.

Methods and material for containment and cleaning up:

Recovery, neutralization: For small spill, absorb spill with absorbent and move to a chemical waste container.

For small spill, use clean non-sparking tools to collect absorbed material.

For large spill, prevent leakage by surrounded with earth and lead the spill to a safety place to collect.

For large spill, water spray is reduce the vapor concentration. But, it may not be suppressed incineration in an enclosed space.

Stop leak if you can do it without risk.

All equipment used when handling the product must be grounded.

Use vapor suppression foam to reduce the vapor concentration.

Preventive measures for secondary accident: Remove all sources of ignition. (Prohibition of smoking, spark and flame in the near field.)

Prevent entry into waterways, sewers, basements or confined areas.

7. HANDLING AND STORAGE

Handling

Technical measures:

Wear proper equipment and take measures according to [8. Exposure controls/personal protection].

Advice on safe handling:

Do not handle until you read and understand all of the safety precautions.

Prohibit the use of a high temperature thing, spark and fire of around.

Do not overturn, drop, shock or drag containers.

Do not breathe mist, vapor and spray.

Wash your hands well after handling.

Do not put into eyes.

Do not contact, suction, or not swallowed.

Use only outdoors or in a good area of ventilation.

Incompatibilities: See [10. Stability and reactivity].

Wear proper equipment and take measures according to [8. Exposure controls/personal protection].

Hygiene measurements:

When using this product, do not eat, drink or smoke.

Wash your hands well after handling.

Storage

Safe storage condition:

Take precautionary measures against static discharges.

Take measures to prevent electrostatic charging.

Keep away from sources of ignition and heat.

Tightly closed in a well-ventilated place.
Keep away from heat/sparks/open flame/hot surfaces. -No smoking.
Store in a cool, dark and well-ventilated place.
Store away from incompatible materials such as oxidizing agents.
Avoid containers from direct sunlight and fire.
Keep containers tightly closed and store in a well-ventilated place.
Store locked up.

Safe packaging material: No information

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters: 200 ppm

Exposure limits:

JSOH (2013): Maximum exposure limits 400 ppm, 980mg/m³

ACGIH (2013): TLV-TWA 200ppm, TLV-STEL 400 ppm

Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

Personal protective equipment

Respiratory protection: Wear suitable respiratory protective equipment.

Hand protection: Wear suitable protective gloves.

Eye protection: Wear suitable eyeglasses or chemical safety goggles.

Skin and body protection:

Wear protective equipment for the proper facial.

Hygiene measure: When using this product, do not eat, drink or smoke

Wash your hands well after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	Liquid (Suspension)
Color	Brown

Safety data

pH	no data available
Melting point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Water solubility	insoluble

10. STABILITY AND REACTIVITY

Reactivity: Stable under normal conditions.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions:

Reacts with Strong oxidizing agent, pose a risk of fire and explosion.

Corrode aluminum at high temperatures.

Conditions to avoid: high temperatures

Incompatible materials: Strong oxidizing agents, Strong alkali agents

Hazardous decomposition products:

A toxic gas such as carbon monoxide and carbon dioxide occur by combustion at the time of

fire.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral toxicity:

Dermal toxicity:

Inhalation: Gas: Based on the NITE GHS classification results

Inhalation: vapor:

Inhalation: Dust and mist: No information available

Skin corrosion/irritation

Serious eye damage/irritation

Respiratory sensitization: No information available

Skin sensitization: No information available

Germ cell mutagenicity: No information available

Carcinogenicity: Not classified

Reproductive toxicity

STOT-single exposure

STOT-repeated exposure

Aspiration hazard: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic toxicity(Acute):

Aquatic toxicity(Chronic):

Hazard to the ozone layer Mobility

The substance is not listed in Annex Montreal Protocol.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

International transport regulations

UN number: 1219

Proper shipping name: ISOPROPANOL (ISOPROPYLALCOHOL)

UN classification: 3

Marine pollutant: Not applicable

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

Applicable

Special precaution

Load containers containing dangerous substances and dangerous substances so that they fall and do not fall or break.

Transport the containers containing dangerous substances or dangerous substances so that they do not cause significant friction or shaking.

In the event of a disaster such as a significant leak of hazardous materials during transportation of hazardous materials, take emergency measures to prevent disasters, and to arrange for nearby fire departments and other relevant agencies.

Do not transport with food and feed.

Emergency Response Guide number 129

15. REGULATORY INFORMATION

In accordance with local and national regulations

Japanese regulations

Industrial Safety and Health Act

Working Environment Evaluation Standards

Second-class organic solvents, etc.

Dangerous Substances - Flammable Substance

Dangerous or Harmful Substances Subject to Be Indicated their Names, etc.

Dangerous or Harmful Substances Subject to Be Notified their Names, etc.

Fire Service Act Class-4 Alcohols

Air Pollution Control Act

Marine Pollution Control Act Noxious liquid substance

Civil Aeronautics Act Flammable Liquids

Ship Safety Act Flammable Liquids

Port Regulation Act Other Dangerous Substances/Flammable Liquids

Road Act Restriction of vehicle traffic

16. OTHER INFORMATION

Further information

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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 with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Tamagawa Seiki Co., shall not be held liable for any damage resulting from handling or from contact with the above product.