

## SAFETY DATA SHEET

SDS #: 49010-BLUE

Date Prepared: 08/16/16

Date Revised: 2019/8/14

**Section 1. Identification of the Substance/Mixture and of the Company/Undertaking****Product Identifier****Product Form:** Substance**Substance Name:** Food Additive Brilliant Blue**CAS No.:** see below Composition**Formula:****Synonyms:**

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**Intended Use of The Product****Use of the substance/mixture:** For children painting

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**Name, Address and Telephone of the Responsible Party:**

Responsible Party Name: NSI Products, HK LTD.

Address : Flat A, 1/F Block 4, Golden Dragon Industrial Centre, 182-190 Tai Lin Pai Road, Kwai Chung, N.T.  
Hong Kong

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**Emergency Telephone #: (852)2411 0812****Section 2. Hazards Identification****Classification of the Substance or Mixture****GHS-US Classification:**

Label Elements

GHS-US labeling

**Hazard Pictograms:****Signal Word (GHS-US):****Hazard Statements:**

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 Date Prepared:  
 Date Revised: 2019/8/14

**Precautionary Statements (GHS-US)**

P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

**Other Hazards:**

**Unknown Toxicity:** [ for mixture containing ingredient(s) with unknown toxicity, a statement of how much (%)of mixture consists of ingredient(s) with unknown toxicity. This is a total % of mixture and is not tied to the individual ingredients].

Section 3. Composition, Information on Ingredients			
Name	Product Identifier	%	GHS-US Classification
Brilliant Blue FCF	3844-45-9	1	
Glycerin	56-81-5	0.99	
Potassium Sorbate	590-00-1	0.01	
Water	7732-18-5	98	

For Full Text of H-Phrases: see Section 16

Section 4. First Aid Measures
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**Description of First Aid Measures**

**First Aid Measures In General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First Aid Measures After Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

**First Aid Measures After Skin Contact:** No evidence of harmful effects from available information.

**First Aid Measures After Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**First Aid Measures After Ingestion:** Rinse mouth. Do NOT induce vomiting

**Most Important Symptoms/Effects, Both Acute and Delayed**

**Symptoms/Injuries:** Eye irritation.

**Symptoms/Injuries After Inhalation:** May cause drowsiness or dizziness.

**Symptoms/Injuries After Skin Contact:** No evidence of harmful effects

**Symptoms/Injuries After Eye Contact:** No data available

**Symptoms/Injuries After Ingestion:** Ingestion may cause nausea, vomiting and diarrhea.

**Symptoms/Injuries:**

**Indication of any immediate medical attention/special Treatment need:**

If medical advice is needed, have product container or label at hand.

**If medical advice is sought, bring or have available product container/label/packaging.**

**Section 5. Fire Fighting Measures**

**Extinguishing Media**

Suitable Extinguishing Media: None.

Unsuitable Extinguishing Media: None.

**Special Hazards Arising From the Substance or Mixture**

Fire Hazard: This product is a non-flammable aqueous emulsion

Explosion HaNone.

Reactivity: None.

**Advice for Firefighters**

Firefighting Instructions: Use self-contained breathing apparatus when fighting fires in enclosed areas

Protection During Firefighting: Product will not burn but may spatter if temperature exceeds boiling point of water.  
Dried solids can burn giving off oxides of carbon

**Section 6. Accidental Release Measures**

**Personal Precautions, Protective Equipment and Emergency Procedures**

General Measures: Steps to be taken if material is released or spilled. Restrict the area to only those personnel needed. Major spills should be collected for disposals. Minor spills may be flushed to sewer if permitted by national, state and local regulations.

**For Non-Emergency Personnel**

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

**For Emergency Responders**

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Ventilate area.

**Environmental Precautions:**

**Methods and Material for Containment and Cleanup**

For Containment:

Methods for Cleanup: Clear up spills immediately and dispose of waste safely.

Reference to Other Sections: See Section 8, Exposure Controls and Personal Protection

**Section 7. Handling and Storage**

**Precautions for Safe Handling**

Additional Hazards When Processed: None

Precautions for Safe Handling: no need

Hygiene Measures:

**Conditions for Safe Storage, Including Incompatibilities**

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Technical Measures:

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Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

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Incompatible Products: Strong acids. Strong bases. Strong oxidizers.

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Incompatible Materials: Heat sources.

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Storage Area: Keep in fireproof place.

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Special Rules on Packaging: no need

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Date Revised: 2019/8/14

Specific End Use(s):

**Section 8. Exposure Controls, Personal Protection**

Exposure Limits: None known.  
Eye Protection: Wear splash goggles where spill or splashing may occur.  
Skin Protection: Not required.  
Respiratory and Ventilation: Wear approved NIOSH respirator if exposure to mist or vapors exceeds applicable PEL/TLV limits. Use in accordance with manufacturer's use limitations and OSHA regulations.

**Section 9. Physical and Chemical Properties**

Physical State: Liquid  
Appearance: Liquid  
Color: blue  
Odor: No data available  
Odor Threshold: No data available  
pH: 6.0 - 7.5  
Relative Evaporation Rate: No data available  
Melting Point: 100°C  
Freezing Point: 0°C  
Boiling Point: 100°C  
Flash Point: No data available  
Auto-Ignition Temperature: No data available  
Flammability: No data available  
Vapor Pressure: No data available  
Relative Vapor Density at 20°C: No data available  
Relative Density: No data available  
Density: No data available  
Solubility: No data available  
Log Pow: No data available  
Log Kow: No data available  
Viscosity, kinematic: No data available  
Viscosity, dynamic: No data available  
Explosive Properties: No data available  
Oxidizing Properties: No data available  
Explosive Limits: No data available  
Other Information: No data available

**Section 10. Stability and Reactivity**

Reactivity: No available information  
Chemical Stability: Stable at ambient temperature and under normal conditions of use  
Possibility of Hazardous Reactions: No available information

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Date Prepared:  
Date Revised: 2019/8/14

Conditions to Avoid: No available information  
Incompatible Materials: No available information  
Hazardous Decomposition Products: No available information

**Section 11. Toxicological Information**

**Information on toxicological effects**

Acute Toxicity: Not classified  
LD Oral Rat  
LD Dermal Rabbit  
LC50 Inhalation rat (mg/l)  
Skin Corrosion/Irritation Not classified  
Serious Eye Damage/Irritation mild eye irritation.  
Respiratory or skin sensitization: Not classified  
Germ Cell Mutagenity: Not classified  
Carcinogenity: Not classified  
Reproductive Toxicity: Not classified  
Specific target organ toxicity (single exposure)  
Specific target organ toxicity (repeated exposure)  
Aspiration hazard: Not classified  
Symptoms/Injuries after inhalation: May cause drowsiness or dizziness.  
Symptoms/Injuries after eye contact: No data available  
Symptoms/Injuries after ingestion: ingestion may cause nausea, vomiting and diarrhea.

**Section 12. Ecological Information**

**Toxicity**

LC50 fish 1  
EC50 Daphnia 1  
LC50 fish 2  
EC50 Daphnia 2

**Persistence and Biodegradability**

Persistence and Biodegradability: No additional information available

**Bioaccumulative potential**

BCF fish 1  
Log Kow  
Bioaccumulative potential: No additional information available

**Mobility in Soil: No additional information available**

**Other Adverse effects: No additional information available**

**Other Information: Avoid release to the environment.**

**Section 13. Disposal Considerations**

Waste Disposal Method:

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Date Revised: 2019/8/14

Dispose of all waste materials in accordance with all applicable federal, state and local regulations for the disposal of aqueous wastes. Do not flush liquid into public sewer or water systems.

**Section 14. Transportation Information:**

D.O.T. Shipping Name: No data available  
Technical Shipping Name: No data available  
D.O.T. Hazard Class: No data available  
U.N./ N.A. Number: No data available  
Product RQ (LBS): No data available  
D.O.T. Label: No data available  
D.O.T. Placard: No data available  
Freight Class Bulk: No data available  
Freight Class Package: No data available  
Product Label: No data available

**Section 15. Regulatory Information:**

OSHA Status: No data available  
TSCA Status: No data available  
CERCLA Reportable Quantity: No data available  
SARA Title III: No data available  
Section 302-Extremely Hazardous Substances: No data available  
Section 311/312- Hazard Categories: No data available  
Section 313 - Toxic Chemicals  
RCRA Status: No data available  
State Regulatory Information: No data available  
Component Name: CAS#: Concentration: State Code:

FHSA Status: No data available

16CFR 1500.14: confirm to

ASTM D-4236 Status: confirm to

**Section 16. Other Information:**

**SAFETY DATA SHEET**

SDS #:

Date Prepared:

Date Revised: 2019/8/14

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This information is based on our current level of knowledge and relates to the products in the states in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Manufacturer information :

CONTACT: +86 (0) 574 88029706

CONTACT PHONE: +86 (0) 574 88029516

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**SAFETY DATA SHEET**

SDS #: 49010-RED  
Date Prepared: 08/16/16  
Date Revised: 2019/8/14

**Section 1. Identification of the Substance/Mixture and of the Company/Undertaking**

**Product Identifier**

**Product Form:** Substance

**Substance Name:** Food Additive Allura Red

**CAS No.:** see below Composition

**Formula:**

**Synonyms:**

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**Intended Use of The Product**

**Use of the substance/mixture:** For children painting

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**Name, Address and Telephone of the Responsible Party:**

Responsible Party Name: NSI Products, HK LTD.

Address : Flat A, 1/F Block 4, Golden Dragon Industrial Centre, 182-190 Tai Lin Pai Road, Kwai Chung, N.T.  
Hong Kong

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**Emergency Telephone #: (852)2411 0812**

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**Section 2. Hazards Identification**

**Classification of the Substance or Mixture**

**GHS-US Classification:**

**Label Elements**

**GHS-US labeling**

**Hazard Pictograms:**

**Signal Word (GHS-US):**

**Hazard Statements:**

**SAFETY DATA SHEET**

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Date Prepared:08/18/16  
Date Revised: 2019/8/14

**Precautionary Statements (GHS-US)**

P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

**Other Hazards:**

**Unknown Toxicity:** [ for mixture containing ingredient(s) with unknown toxicity, a statement of how much (%)of mixture consists of ingredient(s) with unknown toxicity. This is a total % of mixture and is not tied to the individual ingredients].

**Section 3. Composition, Information on Ingredients**

Name	Product Identifier	%	GHS-US Classification
Allura Red	25956-17-6	1	
Glycerin	56-81-5	0.99	
Potassium Sorbate	590-00-1	0.01	
Water	7732-18-5	98	

For Full Text of H-Phrases: see Section 16

**Section 4. First Aid Measures**

**Description of First Aid Measures**

**First Aid Measures In General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First Aid Measures After Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

**First Aid Measures After Skin Contact:** No evidence of harmful effects from available information.

**First Aid Measures After Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**First Aid Measures After Ingestion:** Rinse mouth. Do NOT induce vomiting

**Most Important Symptoms/Effects, Both Acute and Delayed**

**Symptoms/Injuries:** Eye irritation.

**Symptoms/Injuries After Inhalation:** May cause drowsiness or dizziness.

**Symptoms/Injuries After Skin Contact:** No evidence of harmful effects

**Symptoms/Injuries After Eye Contact:** No data available

**Symptoms/Injuries After Ingestion:** Ingestion may cause nausea, vomiting and diarrhea.

**Symptoms/Injuries:**

**Indication of any immediate medical attention/special Treatment need:**

If medical advice is needed, have product container or label at hand.

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**If medical advice is sought, bring or have available product container/label/packaging.**

**Section 5. Fire Fighting Measures**

**Extinguishing Media**

Suitable Extinguishing Media: None.

Unsuitable Extinguishing Media: None.

**Special Hazards Arising From the Substance or Mixture**

Fire Hazard: This product is a non-flammable aqueous emulsion

Explosion HaNone.

Reactivity: None.

**Advice for Firefighters**

Firefighting Instructions: Use self-contained breathing apparatus when fighting fires in enclosed areas

Protection During Firefighting: Product will not burn but may spatter if temperature exceeds boiling point of water.  
Dried solids can burn giving off oxides of carbon

**Section 6. Accidental Release Measures**

**Personal Precautions, Protective Equipment and Emergency Procedures**

General Measures: Steps to be taken if material is released or spilled. Restrict the area to only those personnel needed. Major spills should be collected for disposals. Minor spills may be flushed to sewer if permitted by national, state and local regulations.

**For Non-Emergency Personnel**

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

**For Emergency Responders**

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Ventilate area.

**Environmental Precautions:**

**Methods and Material for Containment and Cleanup**

For Containment:

Methods for Cleanup: Clear up spills immediately and dispose of waste safely.

Reference to Other Sections: See Section 8, Exposure Controls and Personal Protection

**Section 7. Handling and Storage**

**Precautions for Safe Handling**

Additional Hazards When Processed: None

Precautions for Safe Handling: no need

Hygiene Measures:

**Conditions for Safe Storage, Including Incompatibilities**

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SDS #:

Date Prepared:

Date Revised: 2019/8/14

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Technical Measures:

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Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

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Incompatible Products: Strong acids. Strong bases. Strong oxidizers.

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Incompatible Materials: Heat sources.

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Storage Area: Keep in fireproof place.

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Special Rules on Packaging: no need

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SDS #:  
Date Prepared:  
Date Revised: 2019/8/14

Specific End Use(s):

**Section 8. Exposure Controls, Personal Protection**

Exposure Limits: None known.  
Eye Protection: Wear splash goggles where spill or splashing may occur.  
Skin Protection: Not required.  
Respiratory and Ventilation: Wear approved NIOSH respirator if exposure to mist or vapors exceeds applicable PEL/TLV limits. Use in accordance with manufacturer's use limitations and OSHA regulations.

**Section 9. Physical and Chemical Properties**

Physical State: Liquid  
Appearance: Liquid  
Color: red  
Odor: No data available  
Odor Threshold: No data available  
pH: 6.0 - 7.5  
Relative Evaporation Rate: No data available  
Melting Point: 100°C  
Freezing Point: 0°C  
Boiling Point: 100°C  
Flash Point: No data available  
Auto-Ignition Temperature: No data available  
Flammability: No data available  
Vapor Pressure: No data available  
Relative Vapor Density at 20°C: No data available  
Relative Density: No data available  
Density: No data available  
Solubility: No data available  
Log Pow: No data available  
Log Kow: No data available  
Viscosity, kinematic: No data available  
Viscosity, dynamic: No data available  
Explosive Properties: No data available  
Oxidizing Properties: No data available  
Explosive Limits: No data available  
Other Information: No data available

**Section 10. Stability and Reactivity**

Reactivity: No available information  
Chemical Stability: Stable at ambient temperature and under normal conditions of use  
Possibility of Hazardous Reactions: No available information

**SAFETY DATA SHEET**

SDS #:  
Date Prepared:  
Date Revised: 2019/8/14

Conditions to Avoid: No available information  
Incompatible Materials: No available information  
Hazardous Decomposition Products: No available information

**Section 11. Toxicological Information**

**Information on toxicological effects**

Acute Toxicity: Not classified  
LD Oral Rat  
LD Dermal Rabbit  
LC50 Inhalation rat (mg/l)  
Skin Corrosion/Irritation Not classified  
Serious Eye Damage/Irritation mild eye irritation.  
Respiratory or skin sensitization: Not classified  
Germ Cell Mutagenity: Not classified  
Carcinogenity: Not classified  
Reproductive Toxicity: Not classified  
Specific target organ toxicity (single exposure)  
Specific target organ toxicity (repeated exposure)  
Aspiration hazard: Not classified  
Symptoms/Injuries after inhalation: May cause drowsiness or dizziness.  
Symptoms/Injuries after eye contact: No data available  
Symptoms/Injuries after ingestion: ingestion may cause nausea, vomiting and diarrhea.

**Section 12. Ecological Information**

**Toxicity**

LC50 fish 1  
EC50 Daphnia 1  
LC50 fish 2  
EC50 Daphnia 2

**Persistence and Biodegradability**

Persistence and Biodegradability: No additional information available

**Bioaccumulative potential**

BCF fish 1  
Log Kow  
Bioaccumulative potential: No additional information available

**Mobility in Soil: No additional information available**

**Other Adverse effects: No additional information available**

**Other Information: Avoid release to the environment.**

**Section 13. Disposal Considerations**

Waste Disposal Method:

**SAFETY DATA SHEET**

SDS #:  
Date Prepared:  
Date Revised: 2019/8/14

Dispose of all waste materials in accordance with all applicable federal, state and local regulations for the disposal of aqueous wastes. Do not flush liquid into public sewer or water systems.

**Section 14. Transportation Information:**

D.O.T. Shipping Name: No data available  
Technical Shipping Name: No data available  
D.O.T. Hazard Class: No data available  
U.N./ N.A. Number: No data available  
Product RQ (LBS): No data available  
D.O.T. Label: No data available  
D.O.T. Placard: No data available  
Freight Class Bulk: No data available  
Freight Class Package: No data available  
Product Label: No data available

**Section 15. Regulatory Information:**

OSHA Status: No data available  
TSCA Status: No data available  
CERCLA Reportable Quantity: No data available  
SARA Title III: No data available  
Section 302-Extremely Hazardous Substances: No data available  
Section 311/312- Hazard Categories: No data available  
Section 313 - Toxic Chemicals  
RCRA Status: No data available  
State Regulatory Information: No data available  
Component Name: CAS#: Concentration: State Code:

FHSA Status: No data available

16CFR 1500.14: confirm to

ASTM D-4236 Status: confirm to

**Section 16. Other Information:**

**SAFETY DATA SHEET**

SDS #:

Date Prepared:

Date Revised: 2019/8/14

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This information is based on our current level of knowledge and relates to the products in the states in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Manufacturer information :

CONTACT: +86 (0) 574 88029706

CONTACT PHONE: +86 (0) 574 88029516

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**Section 1. Identification of the Substance/Mixture and of the Company/Undertaking**

**Product Identifier**

**Product Form:** Substance

**Substance Name:** Food Additive Tartrazine

**CAS No.:** see below Composition

**Formula:**

**Synonyms:**

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**Intended Use of The Product**

**Use of the substance/mixture:** For children painting

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**Name, Address and Telephone of the Responsible Party:**

Responsible Party Name: NSI Products, HK LTD.

Address : Flat A, 1/F Block 4, Golden Dragon Industrial Centre, 182-190 Tai Lin Pai Road, Kwai Chung, N.T. Hong Kong

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**Emergency Telephone #: (852)2411 0812**

**Section 2. Hazards Identification**

**Classification of the Substance or Mixture**

**GHS-US Classification:**

Label Elements

GHS-US labeling

**Hazard Pictograms:**

**Signal Word (GHS-US):**

**Hazard Statements:**

**SAFETY DATA SHEET**

SDS #:49010-YELLOW  
Date Prepared:  
Date Revised: 2019/8/14

**Precautionary Statements (GHS-US)**

P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

**Other Hazards:**

**Unknown Toxicity:** [ for mixture containing ingredient(s) with unknown toxicity, a statement of how much (%)of mixture consists of ingredient(s) with unknown toxicity. This is a total % of mixture and is not tied to the individual ingredients].

**Section 3. Composition, Information on Ingredients**

Name	Product Identifier	%	GHS-US Classification
Tartrazine	1934-21-0	1	
Glycerin	56-81-5	0.99	
Potassium Sorbate	590-00-1	0.01	
Water	7732-18-5	98	

For Full Text of H-Phrases: see Section 16

**Section 4. First Aid Measures**

**Description of First Aid Measures**

**First Aid Measures In General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First Aid Measures After Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

**First Aid Measures After Skin Contact:** No evidence of harmful effects from available information.

**First Aid Measures After Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**First Aid Measures After Ingestion:** Rinse mouth. Do NOT induce vomiting

**Most Important Symptoms/Effects, Both Acute and Delayed**

**Symptoms/Injuries:** Eye irritation.

**Symptoms/Injuries After Inhalation:** May cause drowsiness or dizziness.

**Symptoms/Injuries After Skin Contact:** No evidence of harmful effects

**Symptoms/Injuries After Eye Contact:** No data available

**Symptoms/Injuries After Ingestion:** Ingestion may cause nausea, vomiting and diarrhea.

**Symptoms/Injuries:**

**Indication of any immediate medical attention/special Treatment need:**

If medical advice is needed, have product container or label at hand.

If medical advice is sought, bring or have available product container/label/packaging.

**Section 5. Fire Fighting Measures**

**Extinguishing Media**

Suitable Extinguishing Media: None.

Unsuitable Extinguishing Media: None.

**Special Hazards Arising From the Substance or Mixture**

Fire Hazard: This product is a non-flammable aqueous emulsion

Explosion HaNone.

Reactivity: None.

**Advice for Firefighters**

Firefighting Instructions: Use self-contained breathing apparatus when fighting fires in enclosed areas

Protection During Firefighting: Product will not burn but may spatter if temperature exceeds boiling point of water.  
Dried solids can burn giving off oxides of carbon

**Section 6. Accidental Release Measures**

**Personal Precautions, Protective Equipment and Emergency Procedures**

General Measures: Steps to be taken if material is released or spilled. Restrict the area to only those personnel needed. Major spills should be collected for disposals. Minor spills may be flushed to sewer if permitted by national, state and local regulations.

**For Non-Emergency Personnel**

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

**For Emergency Responders**

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Ventilate area.

**Environmental Precautions:**

**Methods and Material for Containment and Cleanup**

For Containment:

Methods for Cleanup: Clear up spills immediately and dispose of waste safely.

Reference to Other Sections: See Section 8, Exposure Controls and Personal Protection

**Section 7. Handling and Storage**

**Precautions for Safe Handling**

Additional Hazards When Processed: None

Precautions for Safe Handling: no need

Hygiene Measures:

**Conditions for Safe Storage, Including Incompatibilities**

**SAFETY DATA SHEET**

SDS #:

Date Prepared:

Date Revised: 2019/8/14

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Technical Measures:

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Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

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Incompatible Products: Strong acids. Strong bases. Strong oxidizers.

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Incompatible Materials: Heat sources.

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Storage Area: Keep in fireproof place.

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Special Rules on Packaging: no need

**SAFETY DATA SHEET**

SDS #:  
Date Prepared:  
Date Revised: 2019/8/14

Specific End Use(s):

**Section 8. Exposure Controls, Personal Protection**

Exposure Limits: None known.  
Eye Protection: Wear splash goggles where spill or splashing may occur.  
Skin Protection: Not required.  
Respiratory and Ventilation: Wear approved NIOSH respirator if exposure to mist or vapors exceeds applicable PEL/TLV limits. Use in accordance with manufacturer's use limitations and OSHA regulations.

**Section 9. Physical and Chemical Properties**

Physical State: Liquid  
Appearance: Liquid  
Color: Yellow  
Odor: No data available  
Odor Threshold: No data available  
pH: 6.0 - 7.5  
Relative Evaporation Rate: No data available  
Melting Point: 100°C  
Freezing Point: 0°C  
Boiling Point: 100°C  
Flash Point: No data available  
Auto-Ignition Temperature: No data available  
Flammability: No data available  
Vapor Pressure: No data available  
Relative Vapor Density at 20°C: No data available  
Relative Density: No data available  
Density: No data available  
Solubility: No data available  
Log Pow: No data available  
Log Kow: No data available  
Viscosity, kinematic: No data available  
Viscosity, dynamic: No data available  
Explosive Properties: No data available  
Oxidizing Properties: No data available  
Explosive Limits: No data available  
Other Information: No data available

**Section 10. Stability and Reactivity**

Reactivity: No available information  
Chemical Stability: Stable at ambient temperature and under normal conditions of use  
Possibility of Hazardous Reactions: No available information

**SAFETY DATA SHEET**

SDS #:  
Date Prepared:  
Date Revised: 2019/8/14

Conditions to Avoid: No available information  
Incompatible Materials: No available information  
Hazardous Decomposition Products: No available information

**Section 11. Toxicological Information**

**Information on toxicological effects**

Acute Toxicity: Not classified  
LD Oral Rat  
LD Dermal Rabbit  
LC50 Inhalation rat (mg/l)  
Skin Corrosion/Irritation Not classified  
Serious Eye Damage/Irritation mild eye irritation.  
Respiratory or skin sensitization: Not classified  
Germ Cell Mutagenity: Not classified  
Carcinogenity: Not classified  
Reproductive Toxicity: Not classified  
Specific target organ toxicity (single exposure)  
Specific target organ toxicity (repeated exposure)  
Aspiration hazard: Not classified  
Symptoms/Injuries after inhalation: May cause drowsiness or dizziness.  
Symptoms/Injuries after eye contact: No data available  
Symptoms/Injuries after ingestion: ingestion may cause nausea, vomiting and diarrhea.

**Section 12. Ecological Information**

**Toxicity**

LC50 fish 1  
EC50 Daphnia 1  
LC50 fish 2  
EC50 Daphnia 2

**Persistence and Biodegradability**

Persistence and Biodegradability: No additional information available

**Bioaccumulative potential**

BCF fish 1  
Log Kow  
Bioaccumulative potential: No additional information available

**Mobility in Soil: No additional information available**

**Other Adverse effects: No additional information available**

**Other Information: Avoid release to the environment.**

**Section 13. Disposal Considerations**

Waste Disposal Method:

**SAFETY DATA SHEET**

SDS #:  
Date Prepared:  
Date Revised: 2019/8/14

Dispose of all waste materials in accordance with all applicable federal, state and local regulations for the disposal of aqueous wastes. Do not flush liquid into public sewer or water systems.

**Section 14. Transportation Information:**

D.O.T. Shipping Name: No data available  
Technical Shipping Name: No data available  
D.O.T. Hazard Class: No data available  
U.N./ N.A. Number: No data available  
Product RQ (LBS): No data available  
D.O.T. Label: No data available  
D.O.T. Placard: No data available  
Freight Class Bulk: No data available  
Freight Class Package: No data available  
Product Label: No data available

**Section 15. Regulatory Information:**

OSHA Status: No data available  
TSCA Status: No data available  
CERCLA Reportable Quantity: No data available  
SARA Title III: No data available  
Section 302-Extremely Hazardous Substances: No data available  
Section 311/312- Hazard Categories: No data available  
Section 313 - Toxic Chemicals  
RCRA Status: No data available  
State Regulatory Information: No data available  
Component Name: CAS#: Concentration: State Code:

FHSA Status: No data available

16CFR 1500.14: confirm to

ASTM D-4236 Status: confirm to

**Section 16. Other Information:**

**SAFETY DATA SHEET**

SDS #:

Date Prepared:

Date Revised: 2019/8/14

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This information is based on our current level of knowledge and relates to the products in the states in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Manufacturer information :

CONTACT: +86 (0) 574 88029706

CONTACT PHONE: +86 (0) 574 88029516

THIS IS THE END OF MSDS ID 1.0 REG\_USA

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**SAFETY DATA SHEET**

SDS #: 49010-11  
Date Prepared: 3/1/2017  
Date Revised: 1/11/2022

**Section 1. Identification of the Substance/Mixture and of the Company/Undertaking**

**Product Identifier**

**Product Form:** Substance

**Substance Name:** #11 CRYSTAL GROWING CHEMICAL (Ammonium dihydrogen phosphate)

**CAS No.:** 7722-76-1

**Formula:** N/A

**Synonyms:** N/A

**Intended Use of The Product**

Use of the substance/mixutre: toys and supplies, crystal growing kits for children 10+ with adult supervision

**Name, Address and Telephone of the Responsible Party:**

NSI Products HK, LTD

Address: Flat A 1/F Block 4, Golden Dragon Industrial Centre, 182-190 Tai Lin Pai Rd., Kwai Chung, N.T. HK

Emergency Contact : Tel: (852) 2411 0812 FAX : (852) 2415 3440

**Emergency Telephone #: 888-425-9113 (USA ONLY)**

**Section 2. Hazards Identification**

**Classification of the Substance or Mixture**

**GHS-US Classification:**

Skin Irri. 3 H316

Eye Irrit. 2B H320

**Label Elements**

GHS-US labeling

**Hazard Pictograms: N/A**



**Signal Word (GHS-US): Warning**

**Hazard statements (GHS-US)**

H316 Causes mild skin irritation

H320 - Causes eye irritation

**Precautionary statements (GHS-US):**

**SAFETY DATA SHEET**SDS #: 49010-11  
Date Prepared: 3/1/2017  
Date Revised: 1/11/2022**P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**

Hazard Statements: N/A

Other Hazards: N/A

Unknown Toxicity: N/A

**Section 3. Composition, Information on Ingredients**

Name	Product Identifier	%	GHS-US Classification
Ammonium dihydrogen phosphate	7722-76-1	100.00%	

For Full Text of H-Phrases: see Section 16

**Section 4. First Aid Measures****Description of First Aid Measures****First Aid Measures In General:****First Aid Measures After Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician**First Aid Measures After Skin Contact:** Wash off with soap and plenty of water. Consult a physician**First Aid Measures After Eye Contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician**First Aid Measures After Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician**Most Important Symptoms/Effects, Both Acute and Delayed****Symptoms/Injuries:** Eye irritation.**Symptoms/Injuries After Inhalation:** May cause drowsiness or dizziness.**Symptoms/Injuries After Eye Contact:** Causes serious eye irritation.**Symptoms/Injuries After Ingestion:** Ingestion may cause nausea, vomiting and diarrhea.**Indication of any immediate medical attention/special Treatment need:** Treat symptomatically and supportively.**If medical advice is sought, bring or have available product container/label/packaging.****Section 5. Fire Fighting Measures****Extinguishing Media**

Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Unsuitable Extinguishing Media: N/A

**Special Hazards Arising From the Substance or Mixture**

Hazardous decomposition products formed under fire conditions - Nitrogen oxides (Nox), Oxidizers of phosphorus

**Advice for Firefighters**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode

**Section 6. Accidental Release Measures**

**SAFETY DATA SHEET**

SDS #: 49010-11  
Date Prepared: 3/1/2017  
Date Revised: 1/11/2022

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**Personal Precautions, Protective Equipment and Emergency Procedures**

**General Measures:** Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust

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**For Non-Emergency Personnel**

N/A

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**For Emergency Responders**

N/A

---

**Environmental Precautions:**

Don't let product enter drains

---

**Methods and Material for Containment and Cleanup**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal

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**Section 7. Handling and Storage**

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**Precautions for Safe Handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols

---

**Conditions for Safe Storage, Including Incompatibilities**

**SAFETY DATA SHEET**

SDS #: 49010-11  
Date Prepared: 3/1/2017  
Date Revised: 1/11/2022

Keep container tightly closed in a dry and well-ventilated place.

**Section 8. Exposure Controls, Personal Protection**

Exposure Limits: N/A

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

Eye Protection: Use equipment for eye-protection tested and approved under appropriate government standards such as NIOSH(US) or EN166(EU).

Skin Protection: Impervious clothing, the type of protective equipment must be selected according to concentration and amount of the dangerous substance at the specific workplace.

Respiratory and Ventilation:

For nuisance exposures use type P95(US) or type 91(EU EN143)particle respirator. For higher level protection use type OV/AG/P99(US( or type ABEK-P2(EU EN143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH(US) or CEN(EU)

**Section 9. Physical and Chemical Properties**

Physical State:solid

Appearance: Brilliant white crystal or granules

Color:white

Odor:faint acid odor

Odor Threshold:No data available

pH:4.4-4.8

Relative Evaporation Rate:No data available

Melting Point:> 194°C

Freezing Point:No data available

Boling Point: No data available

Flash Point: No data available

Auto-Ignition Temperature:No data available

Flammability:No data available

**SAFETY DATA SHEET**SDS #: 49010-11  
Date Prepared: 3/1/2017  
Date Revised: 1/11/2022

Vapor Pressure: No data available  
Relative Vapor Density at 20° C: No data available  
Relative Density: No data available  
Density: 1.8  
Solubility: 1g/2.5ml water  
Log Pow: No data available  
Log Kow: No data available  
Viscosity, kinematic: No data available  
Viscosity, dynamic: No data available  
Explosive Properties: No data available  
Oxidizing Properties: No data available  
Explosive Limits: No data available  
Other Information: Not applicable

**Section 10. Stability and Reactivity**

Reactivity: Stable under normal temperature and pressure.  
Chemical Stability: No data available  
Possibility of Hazardous Reactions: No data available  
Conditions to Avoid: No data available  
Incompatible Materials: No data available  
Hazardous Decomposition Products: decomposition products formed under fire conditions - nitrogen oxides (Nox), Oxides of phosphorus

**Section 11. Toxicological Information****Information on toxicological effects**

Acute Toxicity: Not classified  
LD Oral Rat: 5,750mg/kg  
LD Dermal Rabbit: 7940mg/kg  
LC50 Inhalation rat (mg/l): Not classified  
Skin Corrosion/Irritation: skin - human - mild skin irritation  
Serious Eye Damage/Irritation: eyes - human - mild eye irritation  
Respiratory or skin sensitization: Not classified  
Germ Cell Mutagenity: Not classified  
Carcinogenity: Not classified  
Reproductive Toxicity: Not classified  
Specific target organ toxicity (repeated exposure): Not classified  
Aspiration hazard: Not classified  
Symptoms/Injuries after inhalation: Not classified  
Symptoms/Injuries after eye contact: Not classified  
Symptoms/Injuries after ingestion: Not classified

**SAFETY DATA SHEET**

SDS #: 49010-11  
Date Prepared: 3/1/2017  
Date Revised: 1/11/2022

**Section 12. Ecological Information**

**Toxicity**

LC50 fish 1 No data available

EC50 Daphnia 1 No data available

LC50 fish 2 No data available

EC50 Daphnia 2 No data available

**Persistence and Biodegradability**

Persistence and Biodegradability: No data available

**Bioaccumulative potential**

BCF fish 1 No data available

Log Kow No data available

Bioaccumulative potential: No data available

**Mobility in Soil:** No data available

**Other Adverse effects:** No data available

**Other Information:**No data available

**Section 13. Disposal Considerations**

Product: offer surplus and non-recyclable solutions to a licensed disposal company

**Section 14. Transportation Information:**

Not dangerous goods

**Section 15. Regulatory Information:**

OSHA hazards: no known OSHA hazards

DSL status: All components of this product are on the Canadian DSL list

California Prop.65 components: this product doesn't contain any chemicals known to state of California to cause cancer, birth defects or any other reproductive harm.

**Section 16. Other Information:**

This information is based on our current level of knowledge and relates to the products in the states in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Manufacturer information :

**Name, Address and Telephone of the Responsible Party:**

NSI Products HK, LTD

Address: Flat A 1/F Block 4, Golden Dragon Industrial Centre, 182-190 Tai Lin Pai Rd., Kwai Chung, N.T. HK

Emergency Contact : Tel: (852) 2411 0812 FAX : (852) 2415 3440

**Emergency Telephone #: 888-425-9113 (USA ONLY)**

**SAFETY DATA SHEET**

SDS #: 49010-10  
Date Prepared: 3/1/2017  
Date Revised: 1/11/2022

**Section 1. Identification of the Substance/Mixture and of the Company/Undertaking**

**Product Identifier**

**Product Form:** Substance

**Substance Name:** #10 CRYSTAL GROWING POWDER (Aluminum potassium sulfate dodecahydrate)

**CAS No.:** 7784-24-9

**Formula:** N/A

**Synonyms:** Alum

**Intended Use of The Product**

**Use of the substance/mixutre:** toys and supplies, crystal growing kits for children 10+ with adult supervision

**Name, Address and Telephone of the Responsible Party:**

NSI Products HK, LTD

Address: Flat A 1/F Block 4, Golden Dragon Industrial Centre, 182-190 Tai Lin Pai Rd., Kwai Chung, N.T. HK

Emergency Contact : Tel: (852) 2411 0812 FAX : (852) 2415 3440

**Emergency Telephone #: 888-425-9113 (USA ONLY)**

**Section 2. Hazards Identification**

**Classification of the Substance or Mixture**

**GHS-US Classification:** N/A

**Label Elements**

**GHS-US labeling**

**Hazard Pictograms:** N/A

**Signal Word (GHS-US):** N/A

**Hazard statements (GHS-US)**

N/A

**Precautionary statements (GHS-US):**

N/A

**Hazard Statements:** N/A

**Other Hazards:** N/A

**Unknown Toxicity:** N/A

## SAFETY DATA SHEET

SDS #: 49010-10  
 Date Prepared: 3/1/2017  
 Date Revised: 1/11/2022

## Section 3. Composition, Information on Ingredients

Name	Product Identifier	%	GHS-US Classification
Aluminum potassium sulfate dodecahydrate	7784-24-9	100.00%	

For Full Text of H-Phrases: see Section 16

## Section 4. First Aid Measures

**Description of First Aid Measures****First Aid Measures In General:**

**First Aid Measures After Inhalation:** Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. Seek immediate medical advice.

**First Aid Measures After Skin Contact:** Wash off with soap and plenty of water. Consult a physician

**First Aid Measures After Eye Contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician

**First Aid Measures After Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most Important Symptoms/Effects, Both Acute and Delayed**

**Symptoms/Injuries:** no data available

**Symptoms/Injuries After Inhalation:** no data available

**Symptoms/Injuries After Eye Contact:** no data available

**Symptoms/Injuries After Ingestion:** Ingestion may cause nausea, vomiting and diarrhea.

**Indication of any immediate medical attention/special Treatment need:** no data available

**If medical advice is sought, bring or have available product container/label/packaging.**

## Section 5. Fire Fighting Measures

**Extinguishing Media**

Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media: N/A

**Special Hazards Arising From the Substance or Mixture**

Sulphur oxides(Sox)  
 potassium oxide  
 Aluminum oxide

**Advice for Firefighters**

Protective equipment: Wear self-contained breathing apparatus. Wear full protective suit.

## Section 6. Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures**

**General Measures:** using artificial respiration and protective devices.

**For Non-Emergency Personnel**

N/A

**For Emergency Responders**

N/A

**Environmental Precautions:**

Don't allow product to reach sewage system or water bodies.

Don't allow to enter ground/soil.



**SAFETY DATA SHEET**

SDS #: 49010-10  
Date Prepared: 3/1/2017  
Date Revised: 1/11/2022

**Methods and Material for Containment and Cleanup**

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Collect mechanically

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Reference to Other Sections: See Section 8, Exposure Controls and Personal Protection

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**SAFETY DATA SHEET**

SDS #: 49010-10  
Date Prepared: 3/1/2017  
Date Revised: 1/11/2022

**Section 7. Handling and Storage**

**Precautions for Safe Handling**

Keep containers tightly sealed

**Conditions for Safe Storage, Including Incompatibilities**

No special requirement

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

Incompatible Products: no data available

Incompatible Materials: no data available

Storage Area: no data available

**Section 8. Exposure Controls, Personal Protection**

Control parameters: Components with critical values that require monitoring at the workplace: product doesn't contain any relevant quantities of material with values that have to be monitored at the workplace.

Exposure controls:

Personal protective equipment

General protective and hygienic measures - The usual precautionary measures should be adhered to in handling the chemicals

Keep away from foodstuffs, beverages and food.

Wash hand during breaks and at the end of work

Breathing equipment: use breathing protection with high concentration.

Protection of hands: check protective gloves prior to each use for their proper condition. The selection of the suitable gloves doesn't only depend on the material, but also no further marks of quality and varies from manufacturer to manufacturer

Eye protection: safety glasses

Body protection: protective work clothing

**Section 9. Physical and Chemical Properties**

Physical State: solid

Appearance: colorless crystal

Color: WHITE

Odor: ester odor

Odor Threshold: No data available

pH:3.3 (0.2M solution)

Relative Evaporation Rate: No data available

Melting Point:> 122.5°C

Freezing Point: No data available

Boling Point: 212°C Loses water

Flash Point: No data available

Auto-Ignition Temperature: No data available

Flammability: No data available

**SAFETY DATA SHEET**

SDS #: 49010-10  
Date Prepared: 3/1/2017  
Date Revised: 1/11/2022

Vapor Pressure: No data available

Relative Vapor Density at 20C:No data available

Relative Density: No data available

Density:1.73

Solubility: No data available

Log Pow: No data available

Log Kow:No data available

Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

Explosive Properties: No data available

Oxidizing Properties' data available

Explosive Limits: No data available

Other Information: Not applicable

**Section 10. Stability and Reactivity**

Reactivity: Stable under normal temperature and pressure.

Chemical Stability: No data available

Possibility of Hazardous Reactions: No data available

Conditions to Avoid: No data available

Incompatible Materials: No data available

Hazardous Decomposition Products:

Sulphur oxides(Sox)

potassium oxide

Aluminum oxide

SAFETY DATA SHEET

SDS #: 49010-10  
Date Prepared: 3/1/2017  
Date Revised: 1/11/2022

Section 11. Toxicological Information

**Information on toxicological effects**

**Information on toxicological effects**

Acute Toxicity: Not classified  
LD Oral Rat: Not classified  
LD Dermal Rabbit: Not classified  
LC50 Inhalation rat (mg/l): Not classified  
Skin Corrosion/Irritation: may cause skin irritation  
Serious Eye Damage/Irritation: may cause mild eye irritation  
Respiratory or skin sensitization: Not classified  
Germ Cell Mutagenity: Not classified  
Carcinogenity: Not classified  
Reproductive Toxicity: Not classified  
Specific target organ toxicity (repeated exposure): Not classified  
Aspiration hazard: Not classified  
Symptoms/Injuries after inhalation: Not classified  
Symptoms/Injuries after eye contact: Not classified  
Symptoms/Injuries after ingestion: Not classified

Section 12. Ecological Information

**Toxicity**

LC50 fish 1 No data available  
EC50 Daphnia 1 No data available  
LC50 fish 2 No data available  
EC50 Daphnia 2 No data available

**Persistence and Biodegradability**

Persistence and Biodegradability: No data available

**Bio accumulative potential**

BCF fish 1 No data available  
Log Kow No data available  
Bio accumulative potential: No data available

**Mobility in Soil:** No data available

**Other Adverse effects:** No data available

**Other Information:** No data available

Section 13. Disposal Considerations

Waste treatment method: hand over to disposers of hazards waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulation for proper disposal.

Section 14. Transportation Information:

Not dangerous goods

**SAFETY DATA SHEET**

SDS #: 49010-10  
Date Prepared: 3/1/2017  
Date Revised: 1/11/2022

**Section 15. Regulatory Information:**

Substance of very high concern accordingly to the REACH regulations(EC): substance is not listed  
REACH - pre-registered substance: Substance is listed  
Standard for the uniform scheduling of medicines and poisons: substance is not listed  
ELINCS: Substance is not listed  
Chemical safety assessment: A chemical safety assessment has not been carried out.

This information is based on our current level of knowledge and relates to the products in the states in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Manufacturer information :

**Name, Address and Telephone of the Responsible Party:**

NSI Products HK, LTD

Address: Flat A 1/F Block 4, Golden Dragon Industrial Centre, 182-190 Tai Lin Pai Rd., Kwai Chung, N.T. HK

Emergency Contact : Tel: (852) 2411 0812 FAX : (852) 2415 3440

**Emergency Telephone #: 888-425-9113 (USA ONLY)**

# 新利達電池有限公司



**NEW LEADER BATTERY LIMITED.**

## Material Safety Data Sheet for Lithium Button Cell Series

**Document Number: MSDS-CR Series – Not for recharge** 不可充電 (Version : 2017)

### **SECTION I – Manufacturer Information** 生產商資料

**Manufacturer's Name** 生產商 : New Leader Battery Limited 新利達電池有限公司

**Emergency & Information Phone No** 緊急和查詢電話 : 852 - 2790 6280

**Address** : Rm A, 4/F, Block 1, Camelpaint Building, 62 Hoi Yuen Road, Kwun Tong, Kowloon, Hong Kong.

Signature of Prepare (Optional)

### **SECTION II – Hazardous Ingredients / Identity Information** 成份表

#### **IMPORTANT:**

Use under normal conditions, the lithium battery is hermetically sealed. 鋰錳電池在正常使用下是密封的

**Ingestion:** Swallowing may lead to serious injury or death in as little as 2 hours due to chemical burns and potential of the esophagus. **IMMEDIATELY SEE DOCTOR;** Do not induce vomiting or give food or drink.

誤服 : 在誤吞鋰錳電池的情況下,誤服了的電池在短時間內會導致化學性燒傷,使食道嚴重灼傷或導致死亡,萬一誤服應立即盡快找就近的醫生診斷,不要給誤服者飲食或企圖把誤服之電池吐出

**Inhalation:** Contents of an open battery can cause respiratory irritation.

吸入 : 吸入了開封的電池會刺激呼吸道

**Skin Contact:** Contents of an open battery can cause skin irritation.

皮膚接觸 : 接觸了開封的電池會導致皮膚過敏

**Eye Contact:** Contents of an open battery can cause severe irritation.

眼睛接觸 : 如眼睛不慎接觸了電池會導致眼睛刺痛

**Important Note:** The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful 電池一定不能打開或燃燒,否則內部的化合物曝露在空氣中或燃燒中,會釋放出有害物質

<b>Substance Name/CAS#</b> 名稱/代號	<b>PEL (OSHA)</b>	<b>% Weight</b>
<b>Lithium</b> 鋰 <b>7439-93-2</b>	None Established	1-8%
<b>Propylene Carbonate</b> 碳酸丙烯酯 <b>108-32-7</b>	None Established	1-9%
<b>Manganese Dioxide</b> 二氧化錳 <b>1313-13-9</b>	5mg/m <sup>3</sup> Ceiling (as Mn)	10-22%
<b>Dimethoxymethane</b> 二甲氧基甲烷 <b>110-71-4</b>	None Established	0-6%
<b>Lithium Perchlorate</b> 高氯酸鋰 <b>7791-03-09</b>	None Established	0-3%
<b>Carbon Black</b> 炭 <b>1333-86-4</b>	3.5mg/m <sup>3</sup> TWA	0-1%
<b>Dioxolane</b> 二惡茂烷 <b>646-06-0</b>	None Established	0-8%

# 新利達電池有限公司



**NEW LEADER BATTERY LIMITED.**

## Material Safety Data Sheet for Lithium Button Cell Series

**Document Number: MSDS-CR Series – Not for recharge** 不可充電 (Version : 2017)

<b>Graphite</b> 石墨 <b>7782-42-5</b>	15mg/m <sup>3</sup> TWA (total Dust) 5mg/m <sup>3</sup> TWA (respirable fraction)	4%
<b>Steel</b> 鋼/鐵 <b>65997-19-5</b>	None Established	32%
<b>Others</b> 其他	None Established	Balance

<b>SECTION III – Physical / Chemical Characteristics</b> 物理/化學特性	
Boiling Point 沸點	: N.A.
Specific Gravity 比重 (H <sub>2</sub> O = 1)	: N.A.
Melting Point 熔點	: N.A.
Vapor Pressure 蒸氣壓 (mm Hg)	: N.A.
Vapor Density 蒸氣密度 (AIR = 1)	: N.A.
Evaporation Rate (Butyl Acetate)	: N.A.
Solubility in Water 溶解度	: N.A.
Appearance and Odor 形狀和氣味	, Cylindrical Shape, Odorless 圓柱型 : 無氣味

<b>SECTION IV – Control Fire Measures</b>	
<p>In case of fire where lithium batteries are present, flood area with water or smother with a Class D fire extinguishant appropriate for lithium metal, such as lith-X. Water may not extinguish burning batteries but will cool the adjacent batteries and control the spread of fire. Burning batteries will burn themselves out. Virtually all fires involving lithium batteries can be controlled by flooding with water. However, the contents of the battery will react with water and form hydrogen gas. In a confined space, hydrogen gas can form an explosive mixture. In this situation, smothering agents are recommended. A smothering agent will extinguish burning lithium batteries. Emergency Responders should wear self-contained breathing apparatus. Burning lithium manganese dioxide battery produce toxic and corrosive lithium hydroxide fumes.</p> <p>如遇上鋰電池所引發之火警,應先用水浸淹火災區作冷卻,然後用D型的泡沫滅火器救火,水劑滅火器是不能救熄在燃燒中的鋰電池,但會有效阻止火勢漫延.燃燒中的電池只能燒燼作罷.實際上很多由鋰電池所引發的火災,都只是會用水浸淹的情況下控制,但請注意,當鋰電池中的鋰金屬接觸到水份時會產生氫氣,如在通風設備不好的環境下,有機會引起爆炸,因此泡沫劑是廣泛推介應用於鋰電池的火災中.同時在救火時應穿上帶有自供氣式的保護設備,因為鋰電池在燃燒時會產生帶有毒性的氫氧化鋰之氣體.</p>	

<b>SECTION V – Reactivity Data</b> 反應性數據	
Stability 穩定性	: stable 穩定
Conditions to Avoid 避免條件	: Stable 穩定
Incompatibility 不相容性	: Materials to Avoid 材質避免
Lithium manganese batteries do not meet any of the criteria established in 40CFR 261.2 for reactivity	



# 新利達電池有限公司

## NEW LEADER BATTERY LIMITED.

### Material Safety Data Sheet for Lithium Button Cell Series

**Document Number: MSDS-CR Series – Not for recharge** 不可充電 (Version : 2017)

鋰錳電池的反應性達不到 40CFR 261.2 的標準

#### **SECTION VI – Health Hazard Data** 危害健康之數據

Route(s) of Entry 進入人體之途徑

Inhalation 吸入 : N.A.

Skin 皮膚 : N.A.

Ingestion 攝取 : N.A.

Health Hazard (Acute and Chronic) / Toxicological information 危害健康/毒性信息

In case of electrolyte leakage , skin will be itchy when contaminated with electrolyte  
如電解液泄漏了, 接觸到皮膚會導致皮膚發痒

In contact with electrolyte can cause severe irritation and chemical burns 接觸到電解液會引致化學性燒傷

Inhalation of electrolyte vapors may cause irritation of the upper respiratory tract and lungs  
吸入了蒸發化的電解液, 會引致上呼吸道和肺部敏感

#### **SECTION VII – First Aid Measures** 急救處理措施

Ingestion: Swallowing may lead to serious injury or death in as little as 2 hours due to chemical burns and potential of the esophagus. **IMMEDIATELY SEE DOCTOR**; Do not induce vomiting or give food or drink.

誤服 : 在誤吞鋰錳電池的情況下,誤服了的電池在短時間內會導致化學性燒傷,使食道嚴重灼傷或導致死亡,萬一誤服應立即盡快找就近的醫生診斷,不要給誤服者飲食或企圖把誤服之電池吐出

Inhalation : Provide fresh air and seek medical attention.

吸入 : 提供新鮮的空氣和盡快找就近的醫生診斷

Skin Contact : Remove contaminated clothing and wash skin with soap and water

皮膚接觸 : 把受污染的衣物移走和應立即用肥皂水清洗患處

Eye Contact : Immediately flush eyes thoroughly with water for at least 15 minutes, lifting upper and lower lids, until no evidence of the chemical remains. Seek medical attention.

眼睛接觸 : 盡快用清水沖洗 15 分鐘,眨動上下眼皮,直至沒有化學物殘留在眼睛,盡快找就近的醫生診斷

#### **SECTION VIII – Accidental Release or Spillage** 處理意外釋放或溢出之電池

Ventilation Requirements: Room ventilation may be required in areas where there are open or leaking batteries  
通風設備 : 鋰電池如發生漏液或破損,應把電池移往室內通風地方

Respiratory Protection : Avoid exposure to electrolyte fumes from open or leaking batteries

呼吸道之保護 : 防止吸入已打開或漏液所產生之氣體

Eye Protection: Water safety glasses with side shields if handling an open or leaking batteries

眼部護理 : 應把已打開或漏液之電池,放入已盛載了水的水杯內

Gloves: Use neoprene or natural rubber gloves if handling an open or leaking batteries, battery materials should be





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collected in a leak-proof container.

手套：已打開或漏液之電池在處理時，應帶上橡膠手套和放入防漏之容器內

### **SECTION IX – Safety Warning for Swallowed Hazardous**



Keep out of reach of children. Swallowing may lead to serious injury or death in as little as 2 hours due to chemical burns and potential perforation of the esophagus. Immediately see doctor or ring

**LOCAL EMERGENCY CALL.** Keep in original package until ready to use. Dispose of used batteries immediately.

電池應遠離兒童，誤服了的電池在短時間內會嚴重引致化學性燒傷，使食道嚴重灼傷或導致死亡，應立刻盡快找就近的醫生診斷或致電當地之緊急救援電話，保留原有的包裝，用完之電池應盡快棄置

### **SECTION X – Handling and Storage** 搬運和儲存

**Storage:** Store in a cool, well ventilated area. Elevated temperatures can result in shortened battery life. In locations that handle large quantities of lithium batteries, such as warehouse, lithium batteries should be isolated from unnecessary combustible.

存放：請存放在通風及清涼處，高溫的情況會影響電池之壽命，如存放大量的鋰電池，請存放在貨倉內同時應和可燃燒的物品隔離

**Mechanical Containment:** If potting or sealing the battery in an airtight or watertight container is required, consult your New Leader Battery Limited representative for precautionary suggestions. Do not obstruct safety release vents on batteries, Encapsulation of batteries will not allow cell venting and can cause high pressure rupture.

機械密封：電池必須在一個防水氣和空氣之情況下做焊接或密封之加工，諮詢新利達電池有限公司查詢有關之安全建議。不要忽略已開封電池之安全。已封裝之電池是不容許打開外殼和有機會引起高壓擊破。

**Handling:** Accidental short circuit for a few seconds will not seriously affect the battery. Prolonged short circuit will cause the battery to lose energy, generate significant heat and can cause the safety release vent to open. Source of short circuits include jumbled batteries in bulk containers, metal jewelry, metal covered tables or metal belts used for assembly of batteries into devices. Damaging a lithium battery may result in an internal short circuit.

處理：短暫短路對電池不會有嚴重之影響，短路時間會對電池之容量構成影響，產生高熱影響安全。把其他電池或金屬物品混合和鋰電池放在同一容器內，會對電池產生短路，被破壞之鋰電池在結構內會形成短路。

**The contents of an open battery, including a vented battery, when exposed to water, may result in a fire and/or explosion. Crushed or damaged batteries may result in a fire.**

處理已開封之電池：包括有開孔的電池，當電池放在水中，有機會引起火警或使電池發生爆炸，撞擊或破壞電池有機會引起火警

**If soldering or welding to the battery is required, consult us for proper precaution to prevent seal damage or short**



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circuit.

如需要焊接或點焊加工：請與生產商諮詢如何防止破壞電池或令電池發生短路

**Charging:** This battery is manufactured in a charged state. Its is not designed for recharging. Recharging can cause battery leakage or in some case, high pressure rupture. Inadvertent charging can occur if a battery is installed backwards

充電：電池在生產時已有足夠電量,此款電池設計是不適用在充電池上,把電池再充電有機會令電池漏液及因高壓造成破壞,如不慎把電池充電可令電池發生反充.

#### **SECTION XI – Exposure Controls / Person Protection** 接觸控制/個人保護

Ventilation Requirements 通風系統之要求 : N.A.

Respiratory Protection 呼吸道保護: N.A.

Eyes Protection 眼睛保護 : N.A.

Gloves 手套 : N.A.

#### **SECTION XII – Ecological Information** 生態資料 : N.A.

**SECTION XIII – Disposal Method** 棄置方法 : Dispose of the batteries according to government regulations. 棄置電池方法請參照當地政府之規例

**SECTION XIV – Regulatory Information** 管理的資訊: Special requirement be according to the local regulations. 特別之要求請參照當地政府之規例

#### **SECTION XV – Transport Information** 運輸之資訊

The Batteries in all forms of transportation (e.g. Truck, air, or sea) must be packaged in a safe and responsible manner. Regulatory concerns from all agencies for safe packaging require that batteries be packaged in a manner that prevents short circuits and be contained in (Strong Carton / Packaging) that prevents spillage of contents.

The lithium button cell are exempt from the classification as dangerous goods as they meet the requirements of the special provisions listed below (Essentially, they are properly packaged and labeled, Contains less than 1 gram of lithium and pass the tests defined in UN model regulation section 38.3).

所有電池之運送方式(e.g.航運,空運和陸運)必須要已負責任之態度和安全包裝來運送.所有代理在監管安全包裝的問題上,電池必須要裝放在(加厚紙箱/包裝)防止短路和防電池溢出之包裝容器內.

如達到有關以下危險品之級別之要求的鋰電池則可豁免為危險品(必須有適當之包裝和標籤,其鋰含量小於 1 克及通過有關 UN38.3 規定之測試)

Regulatory Parties

Special Provisions



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ADR	188,230,310,636,656
IMDG	188,230,310,957
UN	UN3090, UN3091
US DOT	29,A54,A101,A100
IATA, ICAO	Packaging Instructions 968 – 970 (section II)

Ref: Summary of Packing Instruction (2017 IATA Dangerous Goods Regulations 58<sup>th</sup> Edition) the minimum requirements necessary to transport as non-restricted goods are as follows

參考：以下是在運送非限制品之包裝指示摘要必須跟據(2017年國際航運協會危險品條例58版)最低之要求:

- For a lithium metal/lithium alloy cell, the lithium content is not more than 1g.  
所有的鋰金屬/鋰合金電池，鋰片含量不會超過 1 克
- Each package must be displayed a battery handling label. (Tel no and emergency call must be printed on label)  
每箱電池必須貼上處理電池標籤。(標籤必須印有電話號碼及急救號碼)
- Each consignment must be accompanied with a declaration of non-dangerous goods document.  
每批貨物必須附上有關非危險品之聲明文件
- The Original package (NL) must be capable of with standard a 1.2m drop test.  
原廠新利達之包裝是可通過 1.2 米高之跌落測試

### **SECTION XVII - Lithium Content** 鋰之含量

Model No	Lithium / g	Model No:	Lithium / g
CR2450	Less than 0.496	CR2430	Less than 0.336
CR2330	Less than 0.320	CR2320	Less than 0.240
CR2032	Less than 0.248	CR2025	Less than 0.200
CR2016	Less than 0.144	CR1620	Less than 0.104
CR1616	Less than 0.096	CR1225	Less than 0.080
CR1220	Less than 0.072	CR1216	Less than 0.056
CR927	Less than 0.040		






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A global lithium label chart is provided below to summarize the current global labeling requirements  
 以下是全球有關寄鋰電池所需要提供的有效標籤的參考,個別運輸公司要求有所不同

Shipping Mode 運輸方式	Li Content 鋰含量	Net quantity wt. Of batteries per Package 每個包裝鋰的 重量	Battery Type 電池型號			
Air	0.3g to ≤1g/cell	≤2.5kg	L91,L92, L522	YES	YES	YES
	0.3g to ≤2g/ Battery					
	≤0.3g /cell	≤2.5kg	All Li Coin and 2L76	NO	YES	YES
	≤0.3g /cell	≤2.5kg	All Li Coin and 2L76	YES	YES	YES
Land/Sea Only	All	All	All	NO	YES	YES

**SECTION XVI – Other Information** 其他資訊 : None