# SAFETY DATA SHEET



Dyna-Start 3P+/ SDS 1 of 3/ pages 1-11 of 33 pages **Biological Component** 

### **Section 1. Identification**

**Product identifier** : DYNA-START 3P+ - BIOLOGICAL COMPONENT

SDS# 385

Other means of : EPA Registration Number 71840-32-34704 (Component A of Soy Inoculant

+Biological #1).

**Product type** : Liquid.

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

**Identified uses** 

identification

Biological beneficial agent.

**Uses advised against** 

Not available.

Supplier's details : LOVELAND PRODUCTS, INC.

P.O. Box 1286

Greeley, CO 80632-1286

Telephone no. : 1-888-574-2878 (Customer Service)

**Email** : retail-SDS2@nutrien.com

**Emergency telephone** 

number (with hours of

operation)

: CHEMTREC: 1-800-424-9300 (24 hrs)

Medical Emergencies: 1-866-944-8565 (24 hrs)

### Section 2. Hazard identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard

> Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture Not classified.

**GHS** label elements

**Hazard pictograms** : Not applicable. Signal word : No signal word.

**Hazard statements** No known significant effects or critical hazards.

**Precautionary statements** 

**General** : Read label before use. Keep out of reach of children. If medical advice is needed,

have product container or label at hand.

**Prevention** : Not applicable. Response : Not applicable. : Not applicable. **Storage Disposal** : Not applicable.

**Hazards not otherwise** 

: May produce an allergic reaction. Contains: 1,2-benzisothiazol-3(2H)-one

classified Micro-organisms may have the potential to provoke sensitizing reactions.

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# Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	% (w/w)	CAS number
Bacillus amyloliquefaciens MBI 600	5	68038-60-8
glycerol	50 - 75	56-81-5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First-aid measures

#### **Description of necessary first aid measures**

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower

eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15

minutes. Get medical attention if irritation occurs.

Inhalation : Remove person to fresh air. No known significant effects. Seek medical attention

for any signs of wheezing and/or breathing difficulties. For additional advice call the medical emergency number on this SDS or your poison center or medical provider.

**Skin contact**: Flush contaminated skin with plenty of water. Remove contaminated clothing and

shoes. Get medical attention if symptoms occur.

**Ingestion**: Wash out mouth with water. If material has been swallowed and the exposed

person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms

occur.

#### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

**Eye contact** : May cause mild eye irritation.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact**: May cause slight transient irritation. May produce an allergic reaction.

Ingestion : No known significant effects or critical hazards. Over-exposure by ingestion is

unlikely under normal working conditions.

#### Over-exposure signs/symptoms

**Eye contact**: Adverse symptoms may include the following:

redness watering

Inhalation : No specific data.

**Skin contact**: Adverse symptoms may include the following:

redness irritation

Ingestion : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

**Specific treatments**: No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

Decontamination measures may be necessary. Personnel and equipment must be

checked and decontaminated prior to leaving the area.

### Section 4. First-aid measures

See toxicological information (Section 11)

# Section 5. Fire-fighting measures

#### Extinguishing media

Suitable extinguishing media

: Use an extinguishing agent suitable for the surrounding fire. Use dry chemical,  $CO_2$ , water spray (fog) or foam.

Unsuitable extinguishing media

: None known.

Specific hazards arising from the chemical

: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

 Decomposition products may include the following materials: carbon dioxide carbon monoxide

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contain and collect the water used to fight the fire for later treatment and disposal.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### Section 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders:

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** 

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused adverse impacts (sewers, waterways, soil or air).

#### Methods and materials for containment and cleaning up

**Small spill** 

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. Use appropriate equipment to put the spilled substance in a container for reuse or disposal.

Large spill

: Stop leak if without risk. Put on appropriate personal protective equipment (see Section 8). Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Use appropriate equipment to put the spilled substance in a container for reuse or disposal. Recycle to process, if possible.

or

Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

### Section 7. Handling and storage

#### Precautions for safe handling

#### **Protective measures**

: Read label before use. Apply this product only as specified on the label. Do not handle until all safety precautions have been read and understood. Put on appropriate personal protective equipment (see Section 8).

#### Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

# including any incompatibilities

Conditions for safe storage, : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

# Section 8. Exposure controls/personal protection

#### **Control parameters**

#### Occupational exposure limits

Ingredient name	Exposure limits
glycerol	OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust

#### **Appropriate engineering** controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants. Ensure proper process control to avoid discharge (temperature, pressure concentration, pH value, time).

#### **Environmental exposure** controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

#### Individual protection measures

Contact your personal protective equipment manufacturer to verify the compatibility of the equipment for the intended purpose.

#### **Hygiene measures**

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### **Eye/face protection**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

#### Skin protection

**Hand protection** 

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

### Section 8. Exposure controls/personal protection

**Body protection** 

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** 

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

For U.S. work sites where respiratory protection is required, ensure that a respiratory protection program meeting 29 CFR 1910.134 requirements is in place.

# Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

#### **Appearance**

Physical state : Liquid.
Color : Beige.
Odor : Cereal-like.
Odor threshold : Not available.

pH : 6 to 8 [Conc. (% w/w): 100%]

Melting point/freezing point Boiling point, initial boiling point, and boiling range

: 100°C (212°F) (Solvent)

: 0°C (32°F) (Solvent)

Flash point : Not available.

Evaporation rate : Not available.

Flammability : Not applicable.

Lower and upper explosion : Not applicable.

limit/flammability limit

Vapor pressure

: 2.3 kPa (17.551 mm Hg) (Solvent)

Relative vapor density : Not available.

Relative density : Not available.

Density : 1.16 g/cm³

**Solubility** : Easily soluble in the following materials: cold water and hot water.

Solubility in water : Not available.

Partition coefficient: n- : Not applicable.

octanol/water

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

Viscosity : Dynamic: 1 mPa·s (1 cP) (Solvent)

Particle characteristics

Median particle size : Not applicable.

# Section 10. Stability and reactivity

**Reactivity**: No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**: The product is stable.

Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : Extremes of temperature and direct sunlight.

**Incompatible materials**: Strong oxidizers, strong acids, strong alkalis.

Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### **Section 11. Toxicological information**

#### **Information on toxicological effects**

#### **Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
DYNA-START 3P+ - BIOLOGICAL COMPONENT	LD50 Oral	Rat - Female	>5000 mg/kg	-
glycerol	LD50 Oral	Rat	12600 mg/kg	-

: No known significant effects or critical hazards.

**Conclusion/Summary** 

Irritation/Corrosion

Not available.

**Conclusion/Summary** 

Skin : May cause slight transient irritation.

**Eyes**: May cause mild eye irritation.

**Respiratory**: No known significant effects or critical hazards.

**Sensitization** 

Not available.

**Conclusion/Summary** 

Skin : May produce an allergic reaction. Micro-organisms may have the potential to

provoke sensitizing reactions.

**Respiratory**: No known significant effects or critical hazards.

**Mutagenicity** 

Not available.

**Conclusion/Summary**: No known significant effects or critical hazards.

**Carcinogenicity** 

Not available.

**Conclusion/Summary**: No known significant effects or critical hazards.

**Reproductive toxicity** 

Not available.

**Conclusion/Summary**: No known significant effects or critical hazards.

**Teratogenicity** 

### **Section 11. Toxicological information**

Not available.

**Conclusion/Summary**: No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

**Aspiration hazard** 

Not available.

Information on the likely

routes of exposure

: Dermal contact. Eye contact. Ingestion.

Potential acute health effects

**Eye contact**: May cause mild eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause slight transient irritation. May produce an allergic reaction.

Ingestion : No known significant effects or critical hazards. Over-exposure by ingestion is

unlikely under normal working conditions.

Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:

redness watering

Inhalation : No specific data.

**Skin contact**: Adverse symptoms may include the following:

redness irritation

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

**Short term exposure** 

Potential immediate : See

: See above.

effects

Potential delayed effects: See below.

Long term exposure

Potential immediate : See above.

effects

Potential delayed effects: See below.

Potential chronic health effects

Reproductive toxicity

Not available.

Conclusion/Summary: No known significant effects or critical hazards.General: No known significant effects or critical hazards.Carcinogenicity: No known significant effects or critical hazards.Mutagenicity: No known significant effects or critical hazards.

Date of issue/Date of revision: 11/23/2022Date of previous issue: No previous validationVersion: 1

: No known significant effects or critical hazards.

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# **Section 11. Toxicological information**

#### **Numerical measures of toxicity**

#### **Acute toxicity estimates**

Product/ingredient name	( 3	(mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
glycerol	12600	N/A	N/A	N/A	N/A

Other information : Not available.

# Section 12. Ecological information

#### **Toxicity**

Product/ingredient name	Result	Species	Exposure
glycerol	Acute LC50 54 to 57 ml/L Fresh water	Fish - Oncorhynchus mykiss	96 hours

**Conclusion/Summary** 

: May be harmful to the environment if released in large quantities. Apply this product only as specified on the label.

#### Persistence and degradability

Not available.

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
glycerol	-1.76	-	low

#### **Mobility in soil**

Soil/water partition coefficient (K<sub>oc</sub>)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

### Section 13. Disposal considerations

#### **Disposal methods**

: Read label before use. Follow disposal instructions on label. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Triple rinse containers with water and add the rinse water to the spray tank. Disposal should be in accordance with applicable regional, national and local laws and regulations. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at http://www.acrecycle.org/. Do not contaminate water, food or feed by storage or disposal.

# **Section 14. Transport information**

	TDG	DOT	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-

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Biological Component

Section 14. Transport information

Packing group - - - - 
Marine pollutant No. No. No. No.

Special precautions for user : Transport within user's premises: always transport in closed containers that are

upright and secure. Ensure that persons transporting the product know what to do in

the event of an accident or spillage.

### Section 15. Regulatory information

**Canadian lists** 

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

**Montreal Protocol** 

Not listed.

**Stockholm Convention on Persistent Organic Pollutants** 

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals** 

Not listed.

**Inventory list** 

Australia : Not determined.

Canada : Not determined.

China : Not determined.

Japan : Japan inventory (CSCL): Not determined.

Japan inventory (ISHL): Not determined.

New Zealand : Not determined.
Philippines : Not determined.
Republic of Korea : Not determined.
Taiwan : Not determined.
Thailand : Not determined.
Turkey : Not determined.

**United States** : All components are active or exempted.

Viet Nam : Not determined.

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Air Act Section 112(b)

**Hazardous Air Pollutants** 

(HAPs)

: Not listed

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### Section 15. Regulatory information

Clean Air Act Section 602

: Not listed

Class I Substances

**Clean Air Act Section 602** 

: Not listed

**Class II Substances** 

**DEA List I Chemicals** 

: Not listed

(Precursor Chemicals)

**DEA List II Chemicals** 

: Not listed

(Essential Chemicals)

**SARA 302/304** 

**Composition/information on ingredients** 

No products were found.

**SARA 311/312** 

Classification : Not applicable.

**Composition/information on ingredients** 

No products were found.

State regulations

Massachusetts : The following components are listed: glycerol

New York : None of the components are listed.

New Jersey : The following components are listed: glycerol Pennsylvania : The following components are listed: glycerol

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

### Section 16. Other information

**History** 

Date of issue/Date of

revision

: 11/23/2022

**Date of previous issue** 

: No previous validation

Version

: 1

Key to abbreviations

: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HPR = Hazardous Products Regulations IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

SGG = Segregation Group

UN = United Nations

Procedure used to derive the classification

Not classified.

✓ Indicates information that has changed from previously issued version.

**Notice to reader** 

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### Section 16. Other information

Supply chain partners must ensure they pass this SDS, and all other relevant safety information to their customers.

#### DISCLAIMER AND LIMITATION OF LIABILITY

The information and recommendations contained in this Safety Data Sheet ("SDS") relate only to the specific material referred to herein (the "Material") and do not relate to the use of such Material in combination with any other material or process. The information and recommendations contained herein are believed to be current and correct as of the date of this SDS. HOWEVER, THE INFORMATION AND RECOMMENDATIONS ARE PRESENTED WITHOUT WARRANTY, REPRESENTATION OR LICENSE OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO THEIR ACCURACY, CORRECTNESS OR COMPLETENESS, AND THE SELLER, SUPPLIER AND MANUFACTURER OF THE MATERIAL AND THEIR RESPECTIVE AFFILIATES (COLLECTIVELY, THE "SUPPLIER") DISCLAIM ALL LIABILITY FOR RELIANCE ON SUCH INFORMATION AND RECOMMENDATIONS. This SDS is not a guarantee of safety. A buyer or user of the Material (a "Recipient") is responsible for ensuring that it has all current information necessary to safely use the Material for its specific purpose.

FURTHERMORE, THE RECIPIENT ASSUMES ALL RISK IN CONNECTION WITH THE USE OF THE MATERIAL. THE RECIPIENT ASSUMES ALL RESPONSIBILITY FOR ENSURING THE MATERIAL IS USED IN A SAFE MANNER IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL, HEALTH, SAFETY AND SECURITY LAWS, POLICIES AND GUIDELINES. THE SUPPLIER DOES NOT WARRANT THE MERCHANTABILITY OF THE MATERIAL OR THE FITNESS OF THE MATERIAL FOR ANY PARTICULAR USE AND ASSUMES NO RESPONSIBILITY FOR INJURY OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY OR RELATED TO THE USE OF THE MATERIAL.

# **SAFETY DATA SHEET**



Dyna-Start 3P+/ SDS 2 of 3/ pages 12-22 of 33 pages 
Rhizobia Component

### **Section 1. Identification**

Product identifier : DYNA-START 3P+ - RHIZOBIA COMPONENT

**SDS** # : 386

Other means of : EPA Registration number 71840-32-34704 (Component B of Soy Inoculant +

identification Biological #1).

Product type : Liquid.

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

**Identified uses** 

Soil amendment.

**Uses advised against** 

Not available.

**Supplier's details**: LOVELAND PRODUCTS, INC.

P.O. Box 1286

Greeley, CO 80632-1286

Telephone no. : 1-888-574-2878 (Customer Service)

**Email**: retail-SDS2@nutrien.com

Emergency telephone

number (with hours of

operation)

: CHEMTREC: 1-800-424-9300 (24 hrs)

Medical Emergencies: 1-866-944-8565 (24 hrs)

### Section 2. Hazard identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard

Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture

Not classified.

**GHS label elements** 

Hazard pictograms : Not applicable.Signal word : No signal word.

**Hazard statements** : No known significant effects or critical hazards.

Precautionary statements

General: Read label before use. Keep out of reach of children. If medical advice is needed,

have product container or label at hand.

Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.
Disposal : Not applicable.

Dyna-Start 3P+/ SDS 2 of 3/ pages 12-22 of 33 pages Rhizobia Component

# Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	% (w/w)	CAS number
Bradyrhizobium japonicum	<1	-

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First-aid measures

#### **Description of necessary first aid measures**

**Eye contact**: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower

eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15

minutes. Get medical attention if irritation occurs.

Inhalation : Remove person to fresh air. No known significant effects. Seek medical attention

for any signs of wheezing and/or breathing difficulties. For additional advice call the medical emergency number on this SDS or your poison center or medical provider.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and

shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. If material has been swallowed and the exposed

person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms

occur.

#### Most important symptoms/effects, acute and delayed

### Potential acute health effects

**Eye contact** : May cause mild eye irritation.

Inhalation : No known significant effects or critical hazards.

**Skin contact**: May cause slight transient irritation.

Ingestion : No known significant effects or critical hazards. Over-exposure by ingestion is

unlikely under normal working conditions.

#### Over-exposure signs/symptoms

**Eye contact**: Adverse symptoms may include the following:

redness watering

Inhalation : No specific data.

**Skin contact**: Adverse symptoms may include the following:

redness irritation

Ingestion : No specific data.

#### Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

**Specific treatments**: No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

Decontamination measures may be necessary. Personnel and equipment must be

checked and decontaminated prior to leaving the area.

### Section 4. First-aid measures

See toxicological information (Section 11)

# Section 5. Fire-fighting measures

#### **Extinguishing media**

Suitable extinguishing media

: Use an extinguishing agent suitable for the surrounding fire. Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

Unsuitable extinguishing media

: None known.

Specific hazards arising from the chemical

: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

: Carbon monoxide, carbon dioxide.

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contain and collect the water used to fight the fire for later treatment and disposal.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### Section 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** 

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused adverse impacts (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. Use appropriate equipment to put the spilled substance in a container for reuse or disposal.

Large spill

: Stop leak if without risk. Put on appropriate personal protective equipment (see Section 8). Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Use appropriate equipment to put the spilled substance in a container for reuse or disposal. Recycle to process, if possible.

or

Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

# Section 7. Handling and storage

#### **Precautions for safe handling**

#### **Protective measures**

: Read label before use. Apply this product only as specified on the label. Do not handle until all safety precautions have been read and understood. Put on appropriate personal protective equipment (see Section 8).

#### Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

# including any incompatibilities

Conditions for safe storage, : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F).

# Section 8. Exposure controls/personal protection

#### **Control parameters**

Occupational exposure limits

None.

#### Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants. Ensure proper process control to avoid discharge (temperature, pressure concentration, pH value, time).

#### **Environmental exposure** controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

#### Individual protection measures

Contact your personal protective equipment manufacturer to verify the compatibility of the equipment for the intended purpose.

#### **Hygiene measures**

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### **Eye/face protection**

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

#### Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

#### **Body protection**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### Section 8. Exposure controls/personal protection

Other skin protection : Appropriate footwear and any additional skin protection measures should be

selected based on the task being performed and the risks involved and should be

approved by a specialist before handling this product.

**Respiratory protection**: Based on the hazard and potential for exposure, select a respirator that meets the

appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important

aspects of use.

For U.S. work sites where respiratory protection is required, ensure that a

respiratory protection program meeting 29 CFR 1910.134 requirements is in place.

# Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

**Appearance** 

Physical state : Liquid.

Color : Not available.

Odor : Characteristic.

Odor threshold : Not available.

**pH** : 5 to 7 [Conc. (% w/w): 100%]

Melting point/freezing point : 0°C (32°F) (Solvent)

Boiling point, initial boiling : 100°C (212°F) (Solvent)

point, and boiling range

Flash point : Does not flash.

Evaporation rate : Not available.

Flammability : Not applicable.

Lower and upper explosion : Not applicable.

limit/flammability limit

Vapor pressure : 2.3 kPa (17.551 mm Hg) (Solvent)

Relative vapor density : Not available.

Relative density : Not available.

Density : 1 g/cm³

**Solubility** : Easily soluble in the following materials: cold water and hot water.

Solubility in water : Not available.

Miscible with water : Yes.

Partition coefficient: n-

octanol/water

: Not applicable.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

Viscosity : Dynamic: 1 mPa·s (1 cP) (Solvent)

Particle characteristics

Median particle size : Not applicable.

Dyna-Start 3P+/ SDS 2 of 3/ pages 12-22 of 33 pages Rhizobia Component

### Section 10. Stability and reactivity

**Reactivity**: No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**: The product is stable.

Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : Extremes of temperature and direct sunlight. Protect from freezing.

**Incompatible materials**: Strong oxidizers, strong acids, strong alkalis.

Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# **Section 11. Toxicological information**

#### Information on toxicological effects

#### **Acute toxicity**

Not available.

**Conclusion/Summary**: No known significant effects or critical hazards.

**Irritation/Corrosion** 

Not available.

**Conclusion/Summary** 

**Skin**: No known significant effects or critical hazards. May cause slight transient irritation.

**Eyes**: No known significant effects or critical hazards. May cause mild eye irritation.

**Respiratory**: No known significant effects or critical hazards.

**Sensitization** 

Not available.

**Conclusion/Summary** 

**Skin** : No known significant effects or critical hazards.

**Respiratory**: No known significant effects or critical hazards.

**Mutagenicity** 

Not available.

**Conclusion/Summary**: No known significant effects or critical hazards.

Carcinogenicity

Not available.

**Conclusion/Summary**: No known significant effects or critical hazards.

Reproductive toxicity

Not available.

**Conclusion/Summary**: No known significant effects or critical hazards.

**Teratogenicity** 

Not available.

**Conclusion/Summary**: No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

# **Section 11. Toxicological information**

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

#### **Aspiration hazard**

Not available.

Information on the likely

routes of exposure

: Dermal contact. Eye contact. Ingestion.

#### Potential acute health effects

**Eye contact** : May cause mild eye irritation.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact**: May cause slight transient irritation.

Ingestion : No known significant effects or critical hazards. Over-exposure by ingestion is

unlikely under normal working conditions.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact**: Adverse symptoms may include the following:

redness watering

Inhalation : No specific data.

**Skin contact**: Adverse symptoms may include the following:

redness irritation

Ingestion : No specific data.

#### Delayed and immediate effects and also chronic effects from short and long term exposure

#### **Short term exposure**

Potential immediate

effects

effects

: See above.

Potential delayed effects: See below.

Long term exposure

Potential immediate

: See above.

5 4 4 1 1 1

Potential delayed effects : See below.

#### Potential chronic health effects

Not available.

Conclusion/Summary
 No known significant effects or critical hazards.
 Carcinogenicity
 No known significant effects or critical hazards.
 Mutagenicity
 No known significant effects or critical hazards.
 Reproductive toxicity
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

#### **Numerical measures of toxicity**

#### **Acute toxicity estimates**

N/A

Dyna-Start 3P+/ SDS 2 of 3/ pages 12-22 of 33 pages Rhizobia Component

# **Section 11. Toxicological information**

Other information : Not available.

# Section 12. Ecological information

### **Toxicity**

Not available.

**Conclusion/Summary** 

: No known significant effects or critical hazards. Apply this product only as specified on the label.

#### Persistence and degradability

Not available.

#### Bioaccumulative potential

Not available.

#### **Mobility in soil**

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

# Section 13. Disposal considerations

#### **Disposal methods**

: Read label before use. Follow disposal instructions on label. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Triple rinse containers with water and add the rinse water to the spray tank. Disposal should be in accordance with applicable regional, national and local laws and regulations. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at http://www.acrecycle.org/. Do not contaminate water, food or feed by storage or disposal.

# **Section 14. Transport information**

	TDG	DOT	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Marine pollutant	No.	No.	No.	No.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

# **Section 15. Regulatory information**

#### **Canadian lists**

Canadian NPRI : None of the components are listed.CEPA Toxic substances : None of the components are listed.

**International regulations** 

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

**Montreal Protocol** 

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals** 

Not listed.

**Inventory list** 

Australia : Not determined.

**Canada** : All components are listed or exempted.

China : Not determined.

Japan : Japan inventory (CSCL): Not determined.

Japan inventory (ISHL): Not determined.

New Zealand : Not determined.
Philippines : Not determined.
Republic of Korea : Not determined.
Taiwan : Not determined.
Thailand : Not determined.
Turkey : Not determined.

**United States** : All components are active or exempted.

Viet Nam : Not determined.

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Air Act Section 112(b) : Not listed

**Hazardous Air Pollutants** 

(HAPs)

Clean Air Act Section 602 : Not listed

**Class I Substances** 

Clean Air Act Section 602 : Not listed

Class II Substances

**DEA List I Chemicals** : Not listed

(Precursor Chemicals)

**DEA List II Chemicals** : Not listed

(Essential Chemicals)

**SARA 302/304** 

**Composition/information on ingredients** 

Dyna-Start 3P+/ SDS 2 of 3/ pages 12-22 of 33 pages Rhizobia Component

# **Section 15. Regulatory information**

No products were found.

**SARA 311/312** 

Classification : Not applicable.

**Composition/information on ingredients** 

No products were found.

**State regulations** 

Massachusetts
 None of the components are listed.
 New York
 None of the components are listed.
 New Jersey
 None of the components are listed.
 Pennsylvania
 None of the components are listed.

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

### Section 16. Other information

**History** 

Date of issue/Date of

revision

: 11/23/2022

Date of previous issue

: No previous validation

Version

• 1

Key to abbreviations

: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HPR = Hazardous Products Regulations IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

SGG = Segregation Group

**UN = United Nations** 

#### Procedure used to derive the classification

Not classified.

**▼** Indicates information that has changed from previously issued version.

#### **Notice to reader**

Supply chain partners must ensure they pass this SDS, and all other relevant safety information to their customers.

#### DISCLAIMER AND LIMITATION OF LIABILITY

The information and recommendations contained in this Safety Data Sheet ("SDS") relate only to the specific material referred to herein (the "Material") and do not relate to the use of such Material in combination with any other material or process. The information and recommendations contained herein are believed to be current and correct as of the date of this SDS. HOWEVER, THE INFORMATION AND RECOMMENDATIONS ARE PRESENTED WITHOUT WARRANTY, REPRESENTATION OR LICENSE OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO THEIR ACCURACY, CORRECTNESS OR COMPLETENESS, AND THE SELLER, SUPPLIER AND MANUFACTURER OF THE MATERIAL AND THEIR RESPECTIVE AFFILIATES (COLLECTIVELY, THE "SUPPLIER") DISCLAIM ALL LIABILITY FOR RELIANCE ON SUCH INFORMATION AND

Dyna-Start 3P+/ SDS 2 of 3/ pages 12-22 of 33 pages Rhizobia Component

### Section 16. Other information

RECOMMENDATIONS. This SDS is not a guarantee of safety. A buyer or user of the Material (a "Recipient") is responsible for ensuring that it has all current information necessary to safely use the Material for its specific purpose.

FURTHERMORE, THE RECIPIENT ASSUMES ALL RISK IN CONNECTION WITH THE USE OF THE MATERIAL. THE RECIPIENT ASSUMES ALL RESPONSIBILITY FOR ENSURING THE MATERIAL IS USED IN A SAFE MANNER IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL, HEALTH, SAFETY AND SECURITY LAWS, POLICIES AND GUIDELINES. THE SUPPLIER DOES NOT WARRANT THE MERCHANTABILITY OF THE MATERIAL OR THE FITNESS OF THE MATERIAL FOR ANY PARTICULAR USE AND ASSUMES NO RESPONSIBILITY FOR INJURY OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY OR RELATED TO THE USE OF THE MATERIAL.

# **SAFETY DATA SHEET**



Dyna-Start 3P+/ SDS 3 of 3/ pages 23-33 of 33 pages Consensus® Component

### **Section 1. Identification**

Product identifier : DYNA-START 3P+ - CONSENSUS®

**SDS** # : 254

Other means of : EPA Registration Number 71840-32-34704 (Component C of Soy Inoculant + Biological #1). Also known as Loveland Product's Inc. Consensus, EPA Reg. No.

34704-1055.

Product type : Liquid.

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

**Identified uses** 

Seed treatment.

Uses advised against

Not available.

**Supplier's details**: LOVELAND PRODUCTS, INC.

P.O. Box 1286

Greeley, CO 80632-1286

Telephone no. : 1-888-574-2878 (Customer Service)

**Email** : retail-SDS2@nutrien.com

**Emergency telephone** number (with hours of

operation)

: CHEMTREC: 1-800-424-9300 (24 hrs)

Medical Emergencies: 1-866-944-8565 (24 hrs)

### Section 2. Hazard identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard

Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the

substance or mixture

: Not classified.

**GHS** label elements

Hazard pictograms : Not applicable.

Signal word : No signal word.

**Hazard statements**: No known significant effects or critical hazards.

**Precautionary statements** 

General : Read label before use. Keep out of reach of children. If medical advice is needed,

have product container or label at hand.

Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.
Disposal : Not applicable.

Dyna-Start 3P+/ SDS 3 of 3/ pages 23-33 of 33 pages Consensus® Component

# Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	% (w/w)	CAS number
chitosan	1	9012-76-4
salicylic acid	0.04	69-72-7
indole-3-butyric acid	0.02	133-32-4
Proprietary ingredients	98.94	Trade secret

The specific chemical identity and / or exact percentage (concentration) of the composition has been withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First-aid measures

### **Description of necessary first aid measures**

**Eye contact**: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower

eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15

minutes. Get medical attention if irritation occurs.

Inhalation : Remove person to fresh air and keep comfortable for breathing. If exposed person

is not breathing, give artificial respiration or oxygen applied by trained personnel.

Get medical attention if symptoms occur.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and

shoes. Get medical attention if symptoms occur.

**Ingestion**: Wash out mouth with water. If material has been swallowed and the exposed

person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms

occur.

#### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

**Eye contact**: May cause mild eye irritation.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : May cause slight transient irritation.

Ingestion : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

**Eye contact**: Adverse symptoms may include the following:

redness watering

Inhalation : No specific data.

**Skin contact**: Adverse symptoms may include the following:

redness

Ingestion : No specific data.

#### Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

**Specific treatments**: No specific treatment.

### Section 4. First-aid measures

**Protection of first-aiders** 

: No action shall be taken involving any personal risk or without suitable training. Decontamination measures may be necessary. Personnel and equipment must be checked and decontaminated prior to leaving the area.

See toxicological information (Section 11)

# Section 5. Fire-fighting measures

#### **Extinguishing media**

Suitable extinguishing media

**Unsuitable extinguishing** media

: Non-flammable. Material will not burn. Use an extinguishing agent suitable for the surrounding fire.

: Do not use water jet.

Specific hazards arising from the chemical

**Hazardous thermal** decomposition products : In a fire or if heated, a pressure increase will occur and the container may burst.

: None known.

**Special protective actions** for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contain and collect the water used to fight the fire for later treatment and disposal.

Special protective equipment for fire-fighters Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### Section 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** 

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused adverse impacts (sewers, waterways, soil or air).

#### Methods and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. Use appropriate equipment to put the spilled substance in a container for reuse or disposal.

### Section 6. Accidental release measures

### Large spill

: Stop leak if without risk. Put on appropriate personal protective equipment (see Section 8). Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Use appropriate equipment to put the spilled substance in a container for reuse or disposal. Recycle to process, if possible.

Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

### Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** 

: Read label before use. Apply this product only as specified on the label. Do not handle until all safety precautions have been read and understood. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

including any incompatibilities

Conditions for safe storage, : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

# Section 8. Exposure controls/personal protection

#### **Control parameters**

Occupational exposure limits

None.

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants. Ensure proper process control to avoid discharge (temperature, pressure concentration, pH value, time).

**Environmental exposure** controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

#### **Individual protection measures**

Contact your personal protective equipment manufacturer to verify the compatibility of the equipment for the intended purpose.

**Hygiene measures** 

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Section 8. Exposure controls/personal protection

#### **Eye/face protection**

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

#### **Skin protection**

**Hand protection** 

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection** 

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** 

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

For U.S. work sites where respiratory protection is required, ensure that a respiratory protection program meeting 29 CFR 1910.134 requirements is in place.

# Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

#### **Appearance**

Physical state : Liquid.

Color : Yellowish.

Odor : Mild.

Odor threshold : Not available.

pH : 2.8 to 3.1

Melting point/freezing point : Not available.

Boiling point, initial boiling : Not available.

point, and boiling range

Flash point : [Product does not sustain combustion.]

Evaporation rate : Not available.

Flammability : Not available.

Lower and upper explosion : Not available.

limit/flammability limit

Vapor pressure: Not available.Relative vapor density: Not available.Relative density: Not available.

**Density** : 1.02 g/cm³ [20°C (68°F)]

Bulk density : 8.51 lb/gal

**Solubility in water** : Soluble in water in any proportion.

Partition coefficient: n-

octanol/water

: Not applicable.

**Auto-ignition temperature**: Not available.

Dyna-Start 3P+/ SDS 3 of 3/ pages 23-33 of 33 pages Consensus® Component

# Section 9. Physical and chemical properties and safety characteristics

**Decomposition temperature**: Not available.

Viscosity : Kinematic (room temperature): 1.767 mm²/s (1.767 cSt)

Kinematic (40°C (104°F)): 1.124 mm<sup>2</sup>/s (1.124 cSt)

**Particle characteristics** 

Median particle size : Not applicable.

### Section 10. Stability and reactivity

**Reactivity**: No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**: The product is stable.

Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : Keep away from incompatible materials.

**Incompatible materials** : Strong oxidizing materials, strong alkalis.

Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products

should not be produced.

# Section 11. Toxicological information

#### Information on toxicological effects

### **Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
CONSENSUS®	LC50 Inhalation Vapor	Rat	>5.1 mg/l	4 hours
	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat - Female	>5000 mg/kg	-

#### **Irritation/Corrosion**

Not available.

**Conclusion/Summary** 

**Skin** : May cause slight transient irritation.

**Eyes** : May cause mild eye irritation.

**Respiratory**: No known significant effects or critical hazards.

**Sensitization** 

Not available.

**Conclusion/Summary** 

Skin : Non-sensitizer to skin.

**Respiratory**: No known significant effects or critical hazards.

**Mutagenicity** 

Not available.

**Conclusion/Summary**: No known significant effects or critical hazards.

**Carcinogenicity** 

# **Section 11. Toxicological information**

Not available.

**Conclusion/Summary**: No known significant effects or critical hazards.

Reproductive toxicity

Not available.

**Conclusion/Summary**: No known significant effects or critical hazards.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

**Aspiration hazard** 

Not available.

Information on the likely

routes of exposure

: Dermal contact. Eye contact.

Potential acute health effects

**Eye contact** : May cause mild eye irritation.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact**: May cause slight transient irritation.

**Ingestion**: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact**: Adverse symptoms may include the following:

redness watering

Inhalation : No specific data.

**Skin contact**: Adverse symptoms may include the following:

redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate : See above.

effects

Potential delayed effects : See above.

Long term exposure

Potential immediate : See above.

effects

Potential delayed effects: See below.

Potential chronic health effects

Not available.

Conclusion/SummaryNo known significant effects or critical hazards.GeneralNo known significant effects or critical hazards.

Dyna-Start 3P+/ SDS 3 of 3/ pages 23-33 of 33 pages Consensus® Component

# Section 11. Toxicological information

Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Reproductive toxicity : No known significant effects or critical hazards.

#### **Numerical measures of toxicity**

#### **Acute toxicity estimates**

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
salicylic acid indole-3-butyric acid	500 100			N/A N/A	N/A N/A

Other information : Not available.

# Section 12. Ecological information

#### **Toxicity**

Not available.

**Conclusion/Summary** 

: Apply this product only as specified on the label. May be harmful to the environment if released in large quantities.

#### Persistence and degradability

Not available.

#### **Bioaccumulative potential**

Not available.

#### **Mobility in soil**

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects : No known significant effects or critical hazards.

# Section 13. Disposal considerations

#### Disposal methods

: Read label before use. Apply this product only as specified on the label. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Triple rinse containers with water and add the rinse water to the spray tank. Disposal should be in accordance with applicable regional, national and local laws and regulations. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at http://www.acrecycle.org/. Do not contaminate water, food or feed by storage or disposal.

# **Section 14. Transport information**

	TDG	DOT	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-

Dyna-Start 3P+/ SDS 3 of 3/ pages 23-33 of 33 pages Consensus® Component  Section 14. Transport information						
Packing group	-	-	-	-		
Marine pollutant	No.	No.	No.	No.		

**Special precautions for user**: **Transport within user's premises:** always transport in closed containers that are

upright and secure. Ensure that persons transporting the product know what to do in

the event of an accident or spillage.

# **Section 15. Regulatory information**

**Canadian lists** 

Canadian NPRI : None of the components are listed.CEPA Toxic substances : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

**Montreal Protocol** 

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals** 

Not listed.

**Inventory list** 

Australia : Not determined.

**Canada** : All components are listed or exempted.

China : Not determined.

Japan : Japan inventory (CSCL): All components are listed or exempted.

Japan inventory (ISHL): Not determined.

New Zealand: All components are listed or exempted.Philippines: All components are listed or exempted.Republic of Korea: All components are listed or exempted.Taiwan: All components are listed or exempted.

Thailand : Not determined.

Turkey : Not determined.

United States : All components are active or exempted.Viet Nam : All components are listed or exempted.

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Dyna-Start 3P+/ SDS 3 of 3/ pages 23-33 of 33 pages Consensus® Component

# **Section 15. Regulatory information**

Clean Air Act Section 112(b) : Not listed

**Hazardous Air Pollutants** 

(HAPs)

Clean Air Act Section 602 : Not listed

**Class I Substances** 

Clean Air Act Section 602 : Not listed

**Class II Substances** 

**DEA List I Chemicals** : Not listed

(Precursor Chemicals)

DEA List II Chemicals : Not listed

(Essential Chemicals)

#### **SARA 302/304**

#### **Composition/information on ingredients**

No products were found.

#### **SARA 311/312**

Classification : Not applicable.

#### **Composition/information on ingredients**

Name	%	Classification
indole-3-butyric acid	0.02	ACUTE TOXICITY (oral) - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A

#### State regulations

Massachusetts: None of the components are listed.New York: None of the components are listed.New Jersey: None of the components are listed.Pennsylvania: None of the components are listed.

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

#### **US EPA**

**EPA REG. NO.** : 34704-1055

#### **EPA Statement**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

#### **CAUTION**

#### Difference between SDS and EPA Pesticide label:

Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

### Section 16. Other information

### **History**

Date of issue/Date of

revision

: 11/23/2022

Date of previous issue

: No previous validation

Version

: 1

Key to abbreviations

: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HPR = Hazardous Products Regulations IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

SGG = Segregation Group UN = United Nations

#### Procedure used to derive the classification

Not classified.

✓ Indicates information that has changed from previously issued version.

#### **Notice to reader**

Supply chain partners must ensure they pass this SDS, and all other relevant safety information to their customers.

#### **DISCLAIMER AND LIMITATION OF LIABILITY**

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