Safety Data Sheet

Advanced Nutrients Overdrive

Section 1. Identification

GHS product identifier	:	Advanced Nutrients Overdrive
Other means of identification	:	Product Code: 3750 Formula Code: 001E
Recommended use of the chemical and restriction on use	:	A plant nutrient used to obtain faster growth and larger yields in all kinds of growing media. Not to be used as food or feed in any forms.
Supplier/Manufacturer's details	:	Advanced Nutrients Ltd. 109-31063 Wheel Ave. Abbotsford, BC Canada V2T6H1 Tel: (877) 604-8637 Email: info@advancednutrients.com www.advancednutrients.com
Emergency Phone number	:	24 Hour Transportation Emergency Number – CHEMTREC 1-800-424-9300 U.S.A, Canada, International

Section 2. Hazard Identification

GHS classification of the substance/mixture	:	Neither the mixture nor its major constituents are listed in (a) the CLP/GHS database (Table 3.1 and 3.2 of Annex VI to CLP) and (b) OSHA Laws & Regulations (29 CFR - 1910 Subpart Z: Table Z-1 to Z-3) as hazardous materials.
GHS label elements		
Pictogram symbol	:	Not applicable.
Signal word	:	Not applicable.
Hazard statement	:	Not hazardous.
Precautionary statement		
General	:	Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention	:	Wash hands thoroughly after handling.
Response	:	If skin or eye irritation occurs get medical advice/attention. If in eyes: rinse cautiously with water for several minutes.
Storage	:	Store in cool and dry place.
Disposal	:	Dispose of contents and container in accordance with all local, regional, national and international regulations.

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Other hazards (not covered the GHS	:	Magnesium nitrate and Potassium nitrate are used in the manufacture of this product. The US National Fire Protection Association (NFPA) Code 430 (1995) has classified magnesium nitrate and potassium nitrate as oxidizing materials in Class 1, which slightly increase the burning rate of combustible materials, but do not cause spontaneous ignition when it comes in contact with them.

Section 3. Composition/Information on Ingredients

Substance/Mixture	:	Mixture
Chemical identity	:	Not applicable
Common name/synonym	:	Not available
CAS number and other unique identifiers	:	Not applicable
Impurities and stabilizing additives	:	Not applicable

Ingredient name	CAS number	% (w/w)	Classification according to OSHA Laws & Regulations
Potassium nitrate	7757-79-1	3-8	Not classified as hazardous
Magnesium nitrate	10377-60-3	2-7	Not classified as hazardous

The chemical identity of the remaining ingredients and their exact proportions used in the mixture are a proprietary trade secret (protected by the Confidential Business Information – CBI) and, within the current knowledge of the manufacturer and in the concentration applicable, they are not hazardous to health or the environment.

Section 4. First-aid Measures

Description of necessary measures

Self-protection of first-aiders	:	No special protection is required.
General information	:	Remove contaminated clothing immediately. In case of accident or unwellness, seek medical attention immediately.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	:	Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.
Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove

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any contact lenses. Get medical attention if irritation occurs.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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:

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Eye contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Indication of immediate medical attention and special treatment needed:

Notes to physician : Treat symptomatically.

Specific treatments : No specific treatment.

See also toxicological information (Section 11).

Section 5. Fire-fighting Methods

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : No specific fire or explosion hazard.

Special protective equipment for fire-fighters : Firefighters may enter the area if a self-contained breathing apparatus (SCBA) and a full face piece is worn.

Special protective precautions for fire-fighters : No special protection is required.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Put on appropriate personal protective equipment.

For emergency personnel : 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 environmental pollution (sewers, waterways, soil or air).

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Methods and materials for containment and clean up

Small spill	:	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
Large spill	:	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). 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

Advice on general 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. See also Section 8 for additional information on hygiene measures
Protective measures	:	Put on appropriate personal protective equipment (see Section 8).
Conditions for safe storage and any incompatibilities	:	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.

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Section 8. Exposure Controls/Personal Protection

Control parameters		
Occupational exposure limits	:	Not applicable according to OSHA's mandatory PELs in the Z-Tables.
Biological limit values	:	None.
Appropriate engineering controls	:	No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.
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. Ensure that eyewash stations and safety showers are close to the workstation location.
Personal Protective Equipment (PPE)	:	PPE should be used in conjunction with other control measures, including engineering controls, ventilation and isolation. See Section 5 (Fire-fighting measures) of the SDS for specific fire/chemical PPE advice.
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.
Skin 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. 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. 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	:	Not required under normal conditions of use.
Thermal hazards	:	None.

Section 9. Physical and Chemical Properties

Appearance (physical state)	:	Yellow/Bronze, clear/opaque, liquid.

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Odor	:	Odorless
Odor threshold	:	Not available
pH	:	3.3
Melting point/Freezing point	:	-9°C (15.8°F)
Initial boiling point and boiling range	:	100°C (212°F)
Flash point	:	Not applicable
Evaporation rate	:	Not available
Flammability (solid, gas)	:	Not flammable
Upper/lower flammability or explosive limits	:	Not applicable
Vapor pressure	:	Not available
Vapor density	:	Not available
Relative density	:	1.12 g/mL
Solubility (ies)	:	Miscible in water
Partition coefficient: n-octanol/water	:	Not available
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	Not available
Viscosity	:	Not available

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 from freezing. Avoid contact with skin, eyes or ingestion.
Incompatible materials	:	Reactive or incompatible with the following materials: reducing materials, organic materials, metals and acids.
Hazardous decomposition Products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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Section 11. Toxicological Information

Acute toxicity

Ingredient	Toxicity	Species	Dose*	Remark
Potassium Nitrate	Oral LD50	Rat	>2000 mg/kg bw	
	Inhalation LC50	No data available	No data available	
	Dermal LD50	No data available	No data available	

*- Obtained from ECHA (Updated Feb. 25, 2015)

Skin corrosion/irritation : There is no data available.

Serious eye damage/ irritation : There is no data available.

Respiratory or skin sensitization : There is no data available.

Germ cell mutagenicity : There is no data available.

Carcinogenicity : There is no data available.

Reproductive toxicity : There is no data available.

STOT-single exposure : There is no data available.

STOT-repeated exposure : There is no data available.

Aspiration hazard : There is no data available.

The Likely routes of exposure, health effects and Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

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

Short-term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Long-term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Potential Chronic health effect : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimate

Oral : There is no data available.

Inhalation of vapors : There is no data available.

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Section 12. Ecological Information

Toxicity

Ingredient name	Result*	Species	Exposure	Reference
Potassium nitrate	Acute LC50 490 mg/L Fresh water	Daphnia - Daphnia magna	48hours	
	Acute LC50 22500 µg/l Fresh water	Fish - Gambusia affinis – Adult	96 hours	

Persistence and degradability	:	There is no data available.
Bio accumulative potential	:	There is no data available.
Mobility in soil	:	There is no data available.
Other adverse effects	:	No known significant effects or critical hazards.

Section 13. Disposal Considerations

Disposal of waste methods	:	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Contaminated packaging	:	Empty containers should be recycled or disposed of through an approved waste management facility. Persons conducting disposal, recycling or reclamation activities should follow the information in Section 8 of this SDS.

Section 14. Transport Information

Identification of ingredients according to UN Model Regulations	
UN number	This product is a mixture of ingredients which are not listed as 'Dangerous Goods' in Chapter 3.2 of UN Recommendations on the Transport of Dangerous Goods and/or one or more ingredients are included in the list but their mixture is exempted from the same Regulation based on the Articles 2.0.2.5 (C), 2.0.2.7 and 3.3.1 No. 208.
UN proper shipping name	
Transport hazard class(es)	
Packing group	

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Special precaution 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.
Transport in bulk	Not applicable (≤ 1000L-container).

Environmental hazards

Ingredient's name	IMDG	UN	ADR	RID	ADN
Magnesium nitrate	No	No	No	No	No
Potassium nitrate	No	No	No	No	No

Section 15. Regulatory Information

Safety, health and environmental regulations specific for the product in question	:	No known specific national and/or regional regulations applicable to this product (including its ingredients).

Section 16. Other Information

Prepared by : Department of Product Development, Advanced Nutrients Ltd., Canada
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Date of Revision : 15/04/2020
Revised Sections : Section 1
Key Acronyms:

- **ADN** : The European Agreement concerning the International Transport of Dangerous Goods by Inland Waterways
- **ADR** : The European Agreement concerning the International Carriage of Dangerous Goods by Road
- **BW** : Body Weight
- **IATA** : International Air Transport Association shipment of Dangerous Goods Regulation
- **IMDG** : International Maritime Dangerous Goods code
- **RID** : The Regulation concerning the International Carriage of Dangerous Goods by Rail
- **SDS** : Safety Data Sheet

Key Literature References:

Convention concerning International Carriage by Rail (COTIF) Appendix C – Regulation concerning the International Carriage of Dangerous Goods by Rail (RID), with effect from 1 January 2013. Intergovernmental Organization for International Carriage by Rail (OTIF). Berne, Switzerland, 2012.

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Globally Harmonized System of Classification and Labelling of Chemicals. 5th Edition. ST/SG/AC. 10.30/Rev. 5. United Nations, New York and Geneva, 2013.

Guidance on Labelling and Packaging Regulation in Accordance with EU Regulation 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation). European Chemical Agency, Finland, 2011.

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OSHA Law and Regulations. Occupational Safety and Health Standards 29 CFR: 1910. https://www.osha.gov/law-regs.html Accessed on April 15, 2015.

Recommendations on the Transport of Dangerous Goods – Manual of Test and Criteria. 5th Edition. ST/SG/AC. 10/11/Rev. 5. United Nations, New York and Geneva, 2009.

Recommendations on the Transport of Dangerous Goods – Model Regulations. 18th Edition. Volume I and II. ST/SG/AC. 10/1/Rev. 18. UN, New York and Geneva, 2013.

Regulation (EC) No. 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. Official Journal of the European Union L 353/1. 2008.

Others : The data here is for hazard communication to our employees, our customers and their employees and authorized regulatory agencies. For the intended purpose, this SDS may be duplicated or the data transcribed to an alternative form.

Note: The information contained herein is provided in good faith and is believed to be correct as of the date of hereof. However, Advanced Nutrients Ltd. makes no representation as to the comprehensiveness or accuracy of the information provided. It is expected that individuals receiving the information will exercise their independent judgement in determining the appropriateness for a particular period. Accordingly, Advanced Nutrients Ltd. will not be responsible for damages of any kind resulting from the use of or reliance upon such information. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder to which the information refers. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information

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contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment.

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