



SAFETY DATA SHEET

EXTRACT POWERED BY ACCOMPLISH™ 6-0-0

Section 1. Identification

Product identifier : EXTRACT POWERED BY ACCOMPLISH™ 6-0-0
Product code : 10002849
SDS # : 651
Other means of identification : EXTRACT™
Product type : Liquid.

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

Identified uses

Fertilizer.

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. Hazards 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.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	% (w/w)	CAS number
ammonium thiosulfate	30 - 40	7783-18-8
ammonium sulfate	1 - 5	7783-20-2
ammonium sulfite	1 - 5	10196-04-0
microorganisms	0.1 - 1	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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** : No specific data.
- Ingestion** : No specific data.

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

- Notes to physician** : 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.
- 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Non-flammable. Material will not burn. Use an extinguishing agent suitable for the surrounding fire.
- 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:
nitrogen oxides
sulfur oxides
ammonia

- Special protective actions for fire-fighters** : No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. 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.
- 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** : 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.

Section 7. Handling and storage

Conditions for safe storage, including 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. This product is not compatible with copper, zinc or their alloys, including brass, bronze or galvanized materials. Contact your sales representative or a metallurgical specialist to ensure compatibility with your equipment.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls : 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. 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 supplier 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.

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	: Translucent. Blue.
Odor	: May have slight ammonia or organic odor.
Odor threshold	: Not available.
pH	: 7 to 8.3 [Conc. (% w/w): 100%]
Melting point/freezing point	: Not available.
Boiling point, initial boiling point, and boiling range	: 100°C (212°F)
Flash point	: Not applicable.
Flammability	: Non-flammable.
Lower and upper explosion limit/flammability limit	: Not applicable.
Vapor pressure	: 2.4 kPa (18 mm Hg)
Relative vapor density	: Not available.
Relative density	: 1.17 to 1.21
Bulk density	: 9.8 to 10 lb/gal
Solubility(ies)	:

Media	Result
cold water	Easily soluble
hot water	Easily soluble

Solubility in water	: Not available.
Miscible with water	: Yes.
Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: Not applicable.
Decomposition temperature	: 150°C (302°F)
Viscosity	: Dynamic: 4.7 mPa·s (4.7 cP)

Particle characteristics

Median particle size	: Not applicable.
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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	: Strong oxidizers such as nitrates, nitrites or chlorates can cause explosive mixtures if heated to dryness.
Conditions to avoid	: Extremes of temperature (>120°F (49°C)) and direct sunlight. Keep away from heat and sources of ignition. Keep away from incompatible materials.
Incompatible materials	: Strong oxidizers, strong acids and strong alkalis. Acids will cause release of sulfur dioxide, a severe respiratory hazard. Alkalis will accelerate the evolution of ammonia. This product is not compatible with copper, zinc or their alloys, including brass, bronze or galvanized materials. Contact your sales representative or a metallurgical specialist to ensure compatibility with your equipment.

Section 10. Stability and reactivity

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
ammonium thiosulfate	LC50 Inhalation Dusts and mists	Rat	>2260 mg/l	4 hours
	LD50 Oral	Rat	2890 mg/kg	-
ammonium sulfate	LD50 Oral	Rat	2840 mg/kg	-

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

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 : No known significant effects or critical hazards.

Respiratory : No known significant effects or critical hazards.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
ammonium thiosulfate	OECD 473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal	Negative

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

Product/ingredient name	Result	Species	Dose	Exposure
ammonium thiosulfate	Negative - Oral	Rat - Female	550 mg/kg bw/day	6 days [6 -15 days]

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.

Section 11. Toxicological information

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 : No specific data.
Ingestion : No specific data.

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

Short term exposure

Potential immediate effects : See above.
Potential delayed effects : See below.

Long term exposure

Potential immediate effects : See above.
Potential delayed effects : See below.

Potential chronic health effects

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.
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)
ammonium thiosulfate	2890	N/A	N/A	N/A	N/A
ammonium sulfate	2840	N/A	N/A	N/A	N/A

Other information : Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
ammonium thiosulfate	Acute EC50 >100 mg/l Fresh water	Aquatic plants	72 hours
	Acute LC50 >200 mg/l Fresh water	Daphnia	48 hours
	Acute LC50 >100 mg/l Fresh water	Fish	96 hours
	Acute LC50 770 mg/l	Fish	96 hours
ammonium sulfate	Acute LC50 15 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Young	48 hours
	Acute LC50 36700 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 143 µg/l Marine water	Fish - Salmo salar - Post-smolt	5 weeks
ammonium sulfite	Acute LC50 240 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours

Conclusion/Summary : May be harmful to the environment if released in large quantities. Excessive nutrient runoff to a body of water may result in eutrophication. Apply this product only as specified on the label.

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
ammonium thiosulfate	-	-	Readily
ammonium sulfate	-	-	Readily

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

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

Section 13. Disposal considerations

Disposal methods : 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. Do not reuse containers for any purpose. 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

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

Section 14. Transport information

Environmental hazards	No.	No.	No.	No.
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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.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

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.

Eurasian Economic Union : **Russian Federation inventory:** 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 Water Act (CWA) 311: ammonium sulfite

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

Section 15. Regulatory information

- DEA List II Chemicals (Essential Chemicals)** : Not listed
- SARA 304 RQ** : Not applicable.
- SARA 311/312 Classification** : Not applicable.
- SARA 313**


	Product name	CAS number	%
Form R - Reporting requirements	ammonium thiosulfate	7783-18-8	30 - 40
	ammonium sulfate	7783-20-2	1 - 5
Supplier notification	ammonium thiosulfate	7783-18-8	30 - 40
	ammonium sulfate	7783-20-2	1 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

- Massachusetts** : The following components are listed: ammonium thiosulfate; ammonium sulfate; ammonium sulfite
- New York** : The following components are listed: ammonium sulfite
- New Jersey** : The following components are listed: ammonium sulfite
- Pennsylvania** : The following components are listed: ammonium thiosulfate; ammonium sulfate; ammonium sulfite

California Prop. 65

 **WARNING:** This product can expose you to chemicals including cadmium, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Section 16. Other information

History

Date of issue/Date of revision : 8/30/2023

Date of previous issue : 8/30/2023

Version : 1

Key to abbreviations

: ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 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

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.

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