

SAFETY DATA SHEETS

This SDS packet was issued with item:

078420070

N/A

MATERIAL SAFETY DATA SHEET

Section I – Product Information			
Product Name or Identity:	SPEC-TUSS™ Powder	Emergency Phone No.:	800 424 9300
Manufacturer's Name:	Neogen Corporation	Int'l Emergency Phone No.:	703 527 3887
	944 Nandino Blvd	<i>Collect Calls Accepted</i>	
	Lexington, KY 40511	Phone No.:	<u>859 254 1221</u>
Date Prepared or Revised: 05/17/2010		Fax No.:	859 255 5532

Section II – Hazardous Ingredients / Identity Information			
Hazardous Components (Specific Chemical Identity: Common Names)	OSHA PEL (Permissible Exposure Limits)	ACGIH TLV (Threshold Limit Value)	Toxicity Data LD ₅₀
Guaifenesin (Glyceryl Guaiacolate) 7% w/w CAS 93-14-1	N/A	N/A	Oral-Rat 1510 mg/kg IVN-Rat 360 mg/kg Oral-Rbt 2553 mg/kg
Ammonium Chloride 75% w/w CAS 12125-02-9	10 mg/m3	10 mg/m3	Oral-Rat 1650 mg/kg Eye irritation rabbit- 500 mg/24 hr Severe
Potassium Iodide 2% w/w CAS 7681-11-0	N/A	N/A	IVN-Rat 285 mg/kg

Section III – Physical Characteristics	
Boiling Point: N/A	Specific Gravity (H ₂ O = 1): N/A
Vapor Pressure (mm Hg.): N/A	Melting Point: No data available
Vapor Density (AIR = 1): No data available	Evaporation Rate (Butyl Acetate = 1): N/A
Solubility in Water: Slightly Soluble	
Appearance and Odor: Red-pink solid powder, odorless	

Section IV – Fire and Explosion Hazard Data	
Flash Point (<i>Method Used</i>): N/A	Flammable Limits: LEL (Lower Explosive Limit) - N/A UEL (Upper Explosive Limit) - N/A
Extinguishing Media: Water spray, carbon dioxide, dry chemical powder or foam.	
Special Fire Fighting Procedures: Wear NIOSH-Approved self-contained breathing apparatus and protective clothing. Avoid breathing dust and contact with skin and eyes.	
Unusual Fire and Explosion Hazards: Like most dry chemicals, as a powder or dust, this product (when mixed with air in critical proportions and in the presence of an ignition source) may present an explosion hazard. During a fire, ammonia and hydrogen chloride gases may be emitted as well as iodine vapors.	

Section V – Reactivity Data			
Stability	Unstable		Conditions to Avoid: Dusting conditions, extreme heat, open flame.
	Stable	X	
Incompatibility (<i>Materials to Avoid</i>): Strong bases, strong acids, oxidizing agents, silver salts, potassium chlorate, ammonium nitrate, bromine trifluoride, and iodine heptafluoride			
Hazardous Decomposition or Byproducts: Carbon monoxide, carbon dioxide, ammonia, HCl gas, iodine vapors			
Hazardous Polymerization	May Occur		Conditions to Avoid: None known
	Will Not Occur	X	

Section VI – Health Hazard Data

Route(s) of Entry:	Inhalation-Low acute inhalation toxicity	Skin-Skin absorption not likely	Ingestion-Harmful if ingested.
Health Hazards (Acute and Chronic)	This product does not contain any ingredient designated by IARC, NTP, ACGIF or OSHA as probable or suspected human carcinogen.		
Carcinogenicity:	NTP-Not listed (National Toxicology Program)	IARC Monographs-Not listed (International Agency for Research in Cancer)	OSHA Regulated-Yes
Signs and Symptoms of Exposure: Harmful if ingested. Ingestion may cause mild to severe metabolic acidosis with nausea, vomiting, headache and drowsiness. Some people may be hypersensitive to this product. May cause respiratory depression. Fumes are irritating to eyes, respiratory passages. Dust may be mildly irritating to skin.			
Medical Conditions Generally Aggravated by Exposure: Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. People who are hypersensitive to this product should not work with it.			
Emergency / First Aid Procedures	Ingestion: If victim is conscious and alert, give 2-3 glasses of water to drink and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Seek immediate medical attention. Do not leave victim unattended. Vomiting may occur spontaneously. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. If vomiting occurs and the victim is conscious, give water to further dilute the product.		
	Inhalation: Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer CPR (cardio-pulmonary resuscitation). Seek medical attention.		
	Eye Contact: Flush with gentle stream of copious amount of water for at least 15 minutes. Hold eyelids open to assure complete flushing. Seek medical attention if irritation develops or persists or if visual changes occur.		
	Skin Contact: In case of skin contact, immediately wash with soap and water for at least 5 minutes. Seek medical attention if irritation develops or persists. Remove contaminated clothing and shoes and clean before re-use.		

Section VII – Precautions for Safe Handling and Use

Accidental Release Measures: Wear protective equipment, sweep up, place in a suitable container and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.
Waste Disposal Method: Use a licensed hazardous waste disposal company. Observe all local, state and Federal regulations.
Handling and Storage: Avoid direct or prolonged contact with skin and eyes. Avoid breathing dust. Store in tightly closed containers in a cool, dry well-ventilated area.
Other Precautions: Avoid dusty conditions and open flame.

Section VIII – Control Measures

Respiratory Protection (Specify Type):		
Ventilation	Local Exhaust: Adequate	Special:
	Mechanical (General): Mechanical	Other:
Protective Gloves: Rubber gloves		Eye Protection: Safety glasses or goggles
Other Protective Clothing or Equipment: Wear suitable protective clothing.		
Work / Hygienic Practices: Normal industrial work and hygienic practices.		
This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Neogen Corporation shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY.		

SECTION 1: Identification of the substance/mixture and of the company

1.1 Product identifier

- Product Name: **Spec-Tuss™**
- Product Part Number(s): **08867**
- Brands: NeogenVet®

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

- Use of the substance/preparation: For use as an expectorant in horses.
- Uses advised against: Not for human use. Do not use in lactating mares. Use only as directed. See label cautions.

1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Neogen Corporation
- Address of Manufacturer: 944 Nandino Blvd.
Lexington, Kentucky 40511
USA
- Telephone: 859/254-1221 • 800/525-2022
- Email: Inform@neogen.com

1.4 Emergency telephone number

- Emergency Telephone: Chemtrec: 1 (800) 424-9300
Outside USA and Canada: +1 (703) 527-3887

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (29 CFR 1910.1200)

- Eye irritation, Cat. 2A

Classification (WHMIS 2015 HPR)

- Eye irritation, Cat. 2A

Additional information: For full text of Hazard statements: see Section 16

2.2 Label elements



GHS07

- Signal Word: Warning
- Symbols: GHS07
- Hazard phrases
Causes serious eye irritation.
- Precautionary Phrases
Wash hands thoroughly after handling.
Wear eye protection.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

- May be mildly irritating to skin.
 - Keep out of reach of children.
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SECTION 3: Composition/information on ingredients

3.1 Substances

3.2 Mixtures

This product is a mixture of the substances listed below with the addition of non-hazardous materials

Chemical	Concentration	CAS No.	H-Statements	Symbols
Ammonium chloride	70-80%	12125-02-9	H302, H319	GHS07
Guaifenesin, USP	5-10%	93-14-1	H302	GHS07
Potassium iodide	1-5%	7681-11-0	H319	GHS07

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

SECTION 4 First aid measures

4.1 Description of first aid measures

- General
In case of doubt, or when symptoms persist, seek medical attention.
If used as directed, this product is not hazardous to humans or animals, but like any other chemical, it should be treated with care, respect, and common sense.
- Contact with skin
Remove contaminated clothing.
Wash affected area with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Contaminated clothing should be laundered before reuse.
- Contact with eyes
If substance has gotten into eyes, immediately wash out with plenty of water for at least 15 minutes.
Irrigate eyes thoroughly while lifting eyelids.
Seek medical advice if irritation persists.
- Ingestion
Rinse mouth with water (do not swallow).
Never make an unconscious person vomit or drink fluids.
If medical advice is needed, have product container or label at hand.
- Inhalation
If inhaled, remove victim to fresh air and keep comfortable for breathing.
Call a poison center or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

- The most important known symptoms are described in the labeling (see Section 2.2) and/or in Section 11.
- Discontinue use in animals with symptoms of sensitivity or allergy.

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

- In case of fire: use water spray, foam, carbon dioxide or dry agent for extinction.

5.2 Special hazards arising from the substance or mixture

- Smoke from fires is toxic. Take precautions to protect personnel from exposure.
- See Section 10.

5.3 Advice for firefighters

- Keep container(s) exposed to fire cool, by spraying with water.
- Wear chemical protection suit and positive-pressure breathing apparatus, if necessary.
- Wear protective clothing as per Section 8.

5.4 Hazardous Combustion Products

- May include carbon oxides.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Shut off all ignition sources.
- Use non-sparking hand tools.
- Avoid raising dust.
- Wear protective clothing as per Section 8.
- Wash thoroughly after dealing with spillage.

6.2 Environmental Precautions

- Do not allow to enter public sewers and watercourses.
- Avoid releasing to the environment.

6.3 Methods and material for containment and cleaning up

- Sweep up and shovel.
- Place in sealable container.
- Seal containers and label them.
- Seek expert advice for removal and disposal of all contaminated materials and wastes.

6.4 Reference to other sections

- See Section 7 for storage. For disposal, see Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Do not breathe dust.
- Use only outdoors or in a well-ventilated area.
- Avoid contact with skin and eyes.
- Do not eat, drink or smoke when using this product.
- Wash hands thoroughly after using this substance.

7.2 Conditions for safe storage, including any incompatibilities

- Store in a cool, dry place.
- Store in a well-ventilated place.
- Keep lid tightly closed when not in use.
- Keep out of reach of children.

7.3 Specific end use(s)

- For use as an expectorant in horses.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Component	CAS No.	Value	Control Parameters	Basis
Ammonium chloride	12125-02-9	TWA	10 mg/m ³	USA-NIOSH Recommended Exposure Limits
		STEL	20 mg/m ³	USA-NIOSH Recommended Exposure Limits
		TWA	2 mg/m ³	USA-ACGIH Threshold Limit Values (TLV)
		STEL	20 mg/m ³ (fume)	USA-ACGIH Threshold Limit Values (TLV)
Potassium iodide	7681-11-0	TWA	0.01 mg/m ³	USA-ACGIH Threshold Limit Values (TLV)

8.2 Exposure controls

- Engineering controls should be provided to prevent the need for ventilation.
- No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear an approved NIOSH N95 dust mask.
- Wear protective gloves according to the concentration and amount of dangerous substance at the specific workplace.
- Wear safety glasses approved to standard for ANSI Z87, according to the concentration and amount of dangerous substance at the specific workplace.
- Wear suitable protective clothing in accordance with good industrial hygiene and safety practices in the event of prolonged exposure to bulk quantities.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

- Appearance: White granular powder
- Odor: Sweet odor
- pH: Not applicable
- Melting Point/Range: Not determined
- Boiling Point/Range: Not applicable
- Flashpoint: No information available
- Evaporation Rate: Not applicable
- Flammability: No information available
- Vapor Pressure: Not applicable
- Vapor Density: Not applicable
- Specific Gravity: No information available
- Solubility in water: Partially soluble in water
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: Product is not self-igniting
- Viscosity: Product is solid
- Explosive Properties: Product does not present an explosion hazard
- Oxidizing Properties: Product is not classified as an oxidizer

9.2 Other information

- No information available

SECTION 10: Stability and reactivity**10.1 Reactivity**

- No information available

10.2 Chemical stability

- Considered stable under normal conditions.

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

- Avoid contact with moisture.

10.5 Incompatible materials

- None known

10.6 Hazardous Decomposition Products

- None known

SECTION 11: Toxicological information**11.1 Information on toxicological effects**

- No experimental test data available for mixture
- ATEmix = 8,061 mg/kg (oral)
- Contact with skin
Causes skin irritation.
- Contact with eyes
Causes serious eye irritation
- Ingestion
Product is not toxic, but may cause irritation of the throat and/or nausea in sensitive individuals.
- Inhalation
May cause respiratory irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Carcinogenicity
Not listed in the National Toxicology Program (NTP) 13th Report on Carcinogens.
Not found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs, Volumes 1-112.
Not listed in OSHA standard 1910.1003 Carcinogens.

SECTION 11: Toxicological information (continued)

- Mutagenicity
No evidence of mutagenic effects.
- Teratogenicity
No evidence of teratogenic effects.

SECTION 12: Ecological information**12.1 Toxicity****Ammonium chloride**

Toxicity to fish

- LC₅₀ – Cyprinus carpio (Carp) – 209 mg/L-96h
- LC₅₀ – Oncorhynchus mykiss (Rainbow trout) – 3.98 mg/L-96h
- NOEC – Oncorhynchus mykiss (Rainbow trout) – 57 mg/L-96h

Toxicity to daphnia and other aquatic invertebrates

- EC₅₀ – Daphnia magna (water flea) – 0.1 mg/L-216h

Potassium iodide

Toxicity to fish

- LC₅₀ – Oncorhynchus mykiss (Rainbow trout) – 2190 mg/L-96h

Toxicity to daphnia and other aquatic invertebrates

- EC₅₀ – Daphnia magna (water flea) – 2.7 mg/L-24h

12.2 Persistence and degradability

- No information available

12.3 Bioaccumulation Potential

- No information available

12.4 Mobility in soil

- No information available

12.5 Other Adverse Effects

- To the best of our knowledge, the properties of this material have not been fully evaluated.
- On available data, substance is not harmful to the environment.

SECTION 13: Disposal considerations

Waste treatment methods

- Disposal should be in accordance with local, state, national, or international regulations.
- Do not discharge into drains or the environment, dispose to an approved waste disposal facility.
- Do not reuse empty containers.

SECTION 14: Transport information**14.1 UN Number**

- Not classified as hazardous for transport

14.2 UN Proper Shipping Name

- Not applicable

14.3 Transport hazard class(es)

- Not applicable

14.4 Packing group

- Not applicable

14.5 Environmental hazards

- Not Classified

14.6 Special precautions for user

- Not Classified

14.7 Domestic Surface Transport (US DOT)

- Proper Shipping Name: Not applicable
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable
- DOT Packing Group: Not applicable

SECTION 14: Transport information (continued)

14.8 International Road/Rail (ADR/RID)

- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

14.9 Ocean/Sea (IMO/IMDG)

- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Packing Group: Not applicable

14.10 Air (ICAO/IATA)

- Proper Shipping Name: Not applicable
- ICAO UN No.: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- The labeling requirements of Federal Food, Drug, and Cosmetic Act differ from the classification criteria and hazard information required for safety data sheets and for workplace labels under the OSHA Hazard Communication Standard 29 CFR 1910.1200. Following is the hazard information as required on the drug label:

KEEP OUT OF REACH OF CHILDREN

For Animal Use Only

For horses only. Not for human use.

Do not use in lactating mares.

- NDC: 59051-8867-4

15.2 United States Regulatory Information

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313: Ammonium chloride, CAS No. 12125-02-9

SARA 311/312

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Toxic Substance Control Act (TSCA)

All components of this material are either listed or exempt from listing on the TSCA Inventory.

State Right-to-Know

Massachusetts

Ammonium chloride, CAS No. 12125-02-9

New Jersey

Ammonium chloride, CAS No. 12125-02-9

Pennsylvania

Ammonium chloride, CAS No. 12125-02-9

SECTION 15: Regulatory information (continued)

15.3 Canadian Regulatory Information

- This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR). The labelling may differ subject to the requirements of the Food and Drugs Act (FDA).
 - WHMIS Classification: Exempt
 - Inventory Status
 - Domestic Substances List (DSL) Listed
 - Non-Domestic Substances List (NDSL) Listed
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SECTION 16: Other information

Document Number: SDS-0017, Spec-Tuss

Date of Preparation: March 10, 2016

Revision: Rev. 1

Replaces: November 18, 2015

Text not given with phrase codes where they are used elsewhere in this safety data sheet: H302: Harmful if swallowed. H319: Causes serious eye irritation.

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Neogen Corporation shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY.