



Roscoflamex PC

SDS Revision Date (mm/dd/yyyy): 10/27/2022

Page 1 of 10

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product identifier used on the label

: **Roscoflamex PC**

Other means of identification : 150079PC0001 Flamex PC Paper- 1 oz.
150079PC0128 Flamex PC Paper & Cardboard- gallon
150079PC0640 Flamex PC Paper & Cardboard- 5 gallon
150079PC5500 Flamex PC Paper- 55 Gal. drum

Recommended use of the chemical and restrictions on use

: Flame retardant
Recommended restrictions: None known.

Chemical family

: Mixture

Name, address, and telephone number of the supplier:

Rosco Laboratories Inc.

52 Harbor View Avenue
Stamford, CT, United States
06902

Supplier's Telephone # : 203-708-8900

24 Hr. Emergency Tel # : Chemtrec 1-800-424-9300 (Within Continental U.S.); Chemtrec 703-527-3887 (Outside U.S.).

Name, address, and telephone number of the manufacturer:

Refer to supplier

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Clear liquid. Odourless.

This material is not classified as hazardous under U.S. OSHA regulations (29 CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Label elements

Hazard pictogram(s)

None required under U.S. OSHA Hazcom 2012 and Canadian WHMIS 2015 regulations.

Signal Word

None required.

Hazard statement(s)

None required.

Precautionary statement(s)

None required.

Other hazards

Other hazards which do not result in classification: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be mildly irritating to skin, eyes and respiratory system.



Roscoflamex PC

SDS Revision Date (mm/dd/yyyy): 10/27/2022

Page 2 of 10

SAFETY DATA SHEET

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration (% by weight)</u>
Ammonium amidosulfonate	Ammonium sulfamate	7773-06-0	1.0 - 5.0
Urea	Carbamide	57-13-6	0.1 - 1.0

The exact concentrations of the above listed chemicals are being withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

- Ingestion* : Do NOT induce vomiting. Have victim rinse mouth with water, then give one to two glasses of water to drink. Never give anything by mouth to an unconscious person. Call a physician.
- Inhalation* : If inhaled, move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration. Obtain medical attention if symptoms develop and persist.
- Skin contact* : Wash off immediately with plenty of water. Remove and wash contaminated clothing before re-use. If irritation or symptoms develop, seek medical attention.
- Eye contact* : Flush eyes with water for at least 15 minutes while holding eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, seek prompt medical attention.

Most important symptoms and effects, both acute and delayed

- : May cause mild eye irritation. Symptoms may include stinging and tearing. May cause mild skin irritation. Symptoms may include mild redness and swelling. May cause respiratory irritation. Symptoms may include upper respiratory irritation, coughing and breathing difficulties. May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed

- : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

- : Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

Unsuitable extinguishing media

- : Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture / Conditions of flammability

- : Burning may produce irritating, toxic and obnoxious fumes. Contains oxidizers, which may increase the burning rate of combustible materials with flare-burning effect.

Flammability classification (OSHA 29 CFR 1910.106)

- : Not flammable.

Hazardous combustion products

- : Ammonia

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

- : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Special fire-fighting procedures



Roscoflamex PC

SDS Revision Date (mm/dd/yyyy): 10/27/2022

Page 3 of 10

SAFETY DATA SHEET

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- : Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Wear suitable protective equipment. Refer to protective measures listed in sections 7 and 8. Restrict access to area until completion of clean-up.

Environmental precautions : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces.

Methods and material for containment and cleaning up

- : Ventilate area of release. Stop spill or leak at source if safely possible. Dike for water control. Use only non-sparking tools and equipment in the clean-up process. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13).

Special spill response procedures

- : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the National Response Center in the United States (phone: 1-800-424-8802).
US CERCLA Reportable quantity (RQ): See section 15.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- : Use only in well-ventilated areas. Wear suitable protective equipment during handling. Avoid breathing vapours or mists. Avoid contact with eyes, skin and clothing. Keep away from extreme heat and flame. Keep away from incompatibles. Keep containers tightly closed when not in use. Wash thoroughly after handling.

Conditions for safe storage : Store in a cool, dry, well-ventilated area. Store away from incompatible materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

Incompatible materials : Strong acids and oxidizing agents; Strong bases

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Exposure Limits:</u>				
<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Ammonium amidosulfonate	10 mg/m ³	N/Av	15 mg/m ³ (total dust); 5 mg/m ³ (Respirable fraction)	N/Av
Urea	10 mg/m ³ (AIHA WEEL)	N/Av	N/Av	N/Av

Exposure controls

Ventilation and engineering measures

- : Use in a well-ventilated area. Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.



Roscoflamex PC

SDS Revision Date (mm/dd/yyyy): 10/27/2022

Page 4 of 10

SAFETY DATA SHEET

- Respiratory protection** : If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Advice should be sought from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.
- Skin protection** : Gloves impervious to the material are recommended. Advice should be sought from glove suppliers.
- Eye / face protection** : Wear safety glasses with side shields (or goggles).
- Other protective equipment** : Wear sufficient clothing to prevent skin contact. Depending on conditions of use, an impervious apron should be worn. An eyewash station and safety shower should be made available in the immediate working area.
- General hygiene considerations** : Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** : Clear liquid.
- Odour** : Ammonia odor.
- Odour threshold** : Not available.
- pH** : 6.8
- Melting Point/Freezing point** : 0°C
- Initial boiling point and boiling range** : 100°C
- Flash point** : Not applicable.
- Flashpoint (Method)** : Not applicable.
- Evaporation rate (BuAe = 1)** : Not available.
- Flammability (solid, gas)** : Not applicable.
- Lower flammable limit (% by vol.)** : Not applicable.
- Upper flammable limit (% by vol.)** : Not applicable.
- Oxidizing properties** : Not applicable
- Explosive properties** : Not explosive
- Vapour pressure** : Not available.
- Vapour density** : Not available.
- Relative density / Specific gravity** : 1.04
- Solubility in water** : Soluble
- Other solubility(ies)** : Not available.
- Partition coefficient: n-octanol/water or Coefficient of water/oil distribution** : Not available.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : 100°C
- Viscosity** : 0.628
- Volatiles (% by weight)** : 91 %
- Volatile organic Compounds (VOC's)** : Not available.



Roscoflamex PC

SDS Revision Date (mm/dd/yyyy): 10/27/2022

Page 5 of 10

SAFETY DATA SHEET

Absolute pressure of container

: Not applicable.

Flame projection length

: Not applicable.

Other physical/chemical comments

: None known or reported by the manufacturer.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not normally reactive.

Chemical stability : Material is stable under normal conditions.

Possibility of hazardous reactions

: Hazardous polymerization does not occur.

Conditions to avoid

: Avoid excessive heat, sparks and open flame. Avoid contact with incompatible materials. Do not use in areas without adequate ventilation. Avoid exposure to light.

Incompatible materials

: See Section 7 (Handling and Storage) for further details.

Hazardous decomposition products

: None known, refer to hazardous combustion products in Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation : YES

Routes of entry skin & eye : YES

Routes of entry Ingestion : YES

Routes of exposure skin absorption

: NO

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

: If product is heated or mists are formed, inhalation may cause irritation to the nose, throat and respiratory tract.

Sign and symptoms ingestion

: Ingestion may irritate digestive tract and cause nausea, vomiting and diarrhea. May be harmful if swallowed.

Sign and symptoms skin

: Direct skin contact may result in little or no irritation.

Sign and symptoms eyes

: May cause mild transient irritation.

Potential Chronic Health Effects

: Prolonged or repeated contact may cause drying, cracking and defatting of the skin.

Mutagenicity

: Not expected to be mutagenic in humans.

Carcinogenicity

: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects & Teratogenicity

: Not expected to cause reproductive effects.

Sensitization to material

: Not expected to be a skin or respiratory sensitizer.

Specific target organ effects

: This material is not classified as hazardous under U.S. OSHA regulations (29 CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Medical conditions aggravated by overexposure

: None known.



Roscoflamex PC

SDS Revision Date (mm/dd/yyyy): 10/27/2022

Page 6 of 10

SAFETY DATA SHEET

Synergistic materials : Not available.
Toxicological data : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

<u>Chemical name</u>	<u>LC₅₀(4hr)</u> <u>inh, rat</u>	<u>LD₅₀</u>	
		<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Ammonium amidosulfonate	N/Av	2 g/kg	N/Av
Urea	N/Av	8471 mg/kg	>21000 mg/kg

Other important toxicological hazards
: None known.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity : Harmful to aquatic life. Do not allow material to contaminate ground water system. See the following tables for individual ingredient ecotoxicity data.

Ecotoxicity data:

<u>Ingredients</u>	<u>CAS #</u>	<u>Toxicity to Fish</u>		
		<u>LC50 / 96h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Ammonium amidosulfonate	7773-06-0	> 100mg/L (Oncorhynchus mykiss)	N/Av	N/Av
Urea	57-13-6	N/Av	N/Av	N/Av

<u>Ingredients</u>	<u>CAS #</u>	<u>Toxicity to Daphnia</u>		
		<u>EC50 / 48h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Ammonium amidosulfonate	7773-06-0	> 100mg/L (Daphnia magna)	N/Av	N/Av
Urea	57-13-6	N/Av	N/Av	N/Av

<u>Ingredients</u>	<u>CAS #</u>	<u>Toxicity to Algae</u>		
		<u>EC50 / 96h or 72h</u>	<u>NOEC / 96h or 72h</u>	<u>M Factor</u>
Ammonium amidosulfonate	7773-06-0	86mg/L (Green algae)	N/Av	N/Av
Urea	57-13-6	N/Av	N/Av	N/Av

Persistence and degradability
: No information available.

Bioaccumulation potential : No information available.



Roscoflamex PC

SDS Revision Date (mm/dd/yyyy): 10/27/2022

Page 7 of 10

SAFETY DATA SHEET

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Urea (CAS 57-13-6)	N/Av	<10
Ammonium amidosulfonate (CAS 7773-06-0)	-4.34	N/Av

Mobility in soil : No information available.

Other Adverse Environmental effects

: No information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal : Handle waste according to recommendations in Section 7.

Methods of Disposal : Dispose in accordance with all applicable federal, state, provincial and local regulations.

RCRA : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
49CFR/DOT	None.	Not regulated.	not regulated	none	
49CFR/DOT Additional information	None.				
TDG	None.	Not regulated.	Not regulated	none	
TDG Additional information	None.				
IMDG	None.	Not regulated.	not regulated	none	
IMDG Additional information	None.				
ICAO/IATA	None.	Not regulated.	not regulated	none	
ICAO/IATA Additional information	None.				

Special precautions for user : None known or reported by the manufacturer.



Roscoflamex PC

SDS Revision Date (mm/dd/yyyy): 10/27/2022

Page 8 of 10

SAFETY DATA SHEET

Environmental hazards : This substance does not meet the criteria for an environmentally hazardous substance according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
: Not available.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Ammonium amidosulfonate	7773-06-0	Yes	5000 lb/ 2270 kg	N/Av	No	N/Ap
Urea	57-13-6	Yes	N/Ap	N/Ap	No	N/Ap

SARA TITLE III: Sec. 311 and 312 SDS Requirements, 40 CFR 370 Hazard Classes: Not a hazard under normal conditions of use. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

All ingredients are listed on the TSCA inventory.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Ammonium amidosulfonate	7773-06-0	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Urea	57-13-6	No	N/Ap	No	No	Yes	No	No	No

Canadian Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

International Information:

Components listed below are present on the following International Inventory list:

<u>Ingredients</u>	CAS #	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Ammonium amidosulfonate	7773-06-0	231-871-7	Present	Present	(1)-404	KE-01742	Present	HSR002900
Urea	57-13-6	200-315-5	Present	Present	(2)-1732	KE-35144	Present	HSR002808



Roscoflamex PC

SDS Revision Date (mm/dd/yyyy): 10/27/2022

Page 9 of 10

SAFETY DATA SHEET

SECTION 16. OTHER INFORMATION

- Legend** : ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
CSA: Canadian Standards Association
DOT: Department of Transportation
EPA: Environmental Protection Agency
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
Inh: Inhalation
LC: Lethal Concentration
LD: Lethal Dose
N/Ap: Not Applicable
N/Av: Not Available
NIOSH: National Institute of Occupational Safety and Health
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PEL: Permissible exposure limit
RCRA: Resource Conservation and Recovery Act
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TLV: Threshold Limit Values
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System
- References** : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices
2. ECHA - European Chemical Agency
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases
4. Safety Data Sheets from manufacturer.
5. US EPA Title III List of Lists
6. California Proposition 65 List
7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal
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- Revision No.** : 2
- Revision Information** : (M)SDS sections updated 3. Hazards identification 8. EXPOSURE CONTROLS / PERSONAL PROTECTION 15. REGULATORY INFORMATION
- Other special considerations for handling** : Provide adequate information, instruction and training for operators.



Roscoflamex PC

SDS Revision Date (mm/dd/yyyy): 10/27/2022

Page 10 of 10

SAFETY DATA SHEET

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