SECTION 1. IDENTIFICATION

Product Name/Identifier	FSS Carbomer
Product Code	FSS00849
Recommended Use	Powder - Hair
Restrictions on Use	Refer to the detailed list of labeling/restrictions (Section 15 Regulatory Information)
Supplier Site	Formulator Sample Shop
Address	135 Joshua Court Lincolnton, NC 28092, USA
Telephone No. (24hrs)	1-704-276-7540
Emergency Telephone #	1-704-276-7540 (Mon-Fri: 8:00AM – 5:00PM EST)

SECTION 2. HAZARD(S) IDENTIFICATION

Hazard Classification:

Health Hazards:

Germ Cell Mutagenicity:	Category 1B
Carcinogenicity:	Category 1A

Unknown Toxicity:

Acute toxicity, oral:	0.0%
Acute toxicity, dermal:	0.0%
Acute toxicity, inhalation, vapor:	99.3%
Acute toxicity, inhalation, dust or mist:	100.0%

OSHA Hazard(s): Combustible Dust

Labeling Elements:

Pictograph:

Hazard statements/Signal Word:

H340: DANGER – May cause genetic defects
H350: DANGER – May cause cancer
EUH018: WARNING – in use may form flammable/explosive vapour-air mixture

Precautionary statements:

Prevention:
P201: Obtain special instructions before use
P202: Do not handle until all safety precautions have been read and understood
P233: Keep container tightly closed
P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
P240 Ground/bond container and receiving equipment.
P281: Use personal protective equipment as required.

Response: P308 + P313: IF exposed or concerned: Get medical advice/attention

Storage: P405: Store locked up

Disposal: P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal

Other hazards which do not result in classification: None identified

US NFPA 704 (National Fire Protection Association) Hazard Rating System:

Health hazard: Rating 1; Irritation or minor reversible injury possible
Flammability: Rating 1; Material must be preheated before ignition will occur
Reactivity: Rating 0; Stable
Other Hazard Information: None

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Common Chemical Name: Polyacrylic Acid

Chemical Family: Polymer

Description: Mixture: consisting of the following components. This section describes all components of the mixture

Substance	CAS Numbers	EC Numbers	Percentage by Weight
Carbomer	9003-01-4	N/A	99.5 – 100.00%
Benzene	71-43-2	200-753-7	0.10 – 0.50%
Acrylic Acid	79-10-7	201-177-9	0.10 – 0.50%

Formula: Not applicable

SECTION 4. FIRST-AID MEASURES

General: If exposed or concerned, in all cases of doubt, seek medical attention.

Inhalation: Move to fresh air from exposure area. Get medical attention for any breathing difficulty

Skin contact: Rinse with soap and water. Get medical advice if irritation develops.

Eye contact: Water (moisture) swells this product into a gelatinous film which may be difficult to remove from the eye using only water. Immediately flush eyes with plenty of one percent (1%) physiological saline solution for five (5) minutes while holding eyelids open. If no saline is available, flush with plenty of clean water for 15 minutes. See a physician. Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses.

Ingestion: Treat symptomatically. Consult with a physician.

Protection of first-aiders: No special protection required.

SECTION 5. FIRE-FIGHTING MEASURES

Fire and explosion hazards: Avoid hose stream or any method which will create dust clouds

Extinguishing media:

Suitable: Water spray, dry chemicals and foam. Carbon dioxide may be ineffective on large fires.

Not suitable: None known

Fire fighting: This material has been evaluated and is considered to be a risk for dust explosion. It is categorized as Dust Explosion Class ST1. Material can form an explosive organic dust air mixture. As with all organic dusts, fine particles suspended in air in critical proportions and in the presence of an ignition source may ignite and/or explode. Dust may be sensitive to ignition by electrostatic discharge, electrical arcs, sparks, welding torches, cigarettes, open flame, or other significant heat sources. This product has a high volume resistivity and a propensity to build up static electricity which may be discharged as a spark. A spark can be an ignition source for solvent vapor/air mixtures. As a precaution, implement standard safety measures for handling finely divided organic powders. If you add this product to a solvent, ensure appropriate safe handling practices such as provision for inerting flammable vapors. Take care to minimize airborne dust. Solid does not readily release flammable vapors.

Protection for fire-fighters: Boots, gloves, goggles & self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with eyes.
Personal Protective Equipment:
-Protective goggles

Environmental precautions: Prevent entry into sewers and waterways. Do not allow material to contaminate ground water system. Environmental manager must be informed of all major spillages.

Methods for cleaning up:

Recovery: Pick up free solid for recycling and/or disposal. Sweep up and place in a clearly labeled container for chemical waste. Avoid dust formation. Use wet sweeping compound or water to avoid raising a dust. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into closed container. Wash spill area with detergent. Material is slippery when wet. Prevent entry into sewers and waterways, dispose of in accordance with all federal, state and local environmental regulation.

SECTION 7. HANDLING AND STORAGE

Handling

Technical measures: Labeling: Keep out of the reach of children. For industrial use, only as directed.

Safe handling advice: Wash hands after use. Avoid storage near feed or food stuff. Avoid conditions which create dust. Avoid breathing dust. Avoid contact with eyes and prolonged or repeated contact with skin. Ground container and transfer equipment to eliminate static electric sparks. Keep away from heat, sparks and open flame. Avoid drinking, tasting, swallowing or ingesting this product.

Storage

Technical measures: Keep container closed.

Recommended Storage Conditions: Store away from incompatible materials. See section 10 for incompatible materials. Store in a dry, well-ventilated place. Keep containers closed when not in use. Maximum storage temperature is < 80°C or < 176°F.

Incompatible products: Heat may be generated if polymer comes in contact with strong basic materials like ammonia, sodium hydroxide or strong basic amines. Strong bases.
Refer to the detailed list of incompatible materials (Section 10 Stability/Reactivity)

Packaging: Product may be packaged in normal commercial packaging.

Packaging materials: Recommended - Polypropylene & High Density Polyethylene

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Occupational exposure limits:

Chemical Name	Type	Exposure Limit Values	Source
Benzene	TWA	0.5 ppm	US. ACGIH Threshold Limit Values (02 2012)
Benzene	STEL	2.5 ppm	US. ACGIH Threshold Limit Values (02 2012)
Benzene	REL	0.1 ppm	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Benzene	STEL	1 ppm	US. NIOSH: Pocket Guide to Chemical Hazards (2010)

Occupational exposure limits (Continued):

Benzene	TWA	1 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910. 1001-1050) (02 2006)
Benzene	STEL	5 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910. 1001-1050) (02 2006)
Benzene	OSHA-ACT	0.5 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910. 1001-1050) (02 2006)
Benzene	TWA	10 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
Benzene	Ceiling	25 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
Benzene	MAX. CONC	50 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
Acrylic Acid	TWA	2 ppm	US. ACGIH Threshold Limit Values (02 2012)
Acrylic Acid	REL	2 ppm 6 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)

Other exposure limits:

Chemical Name	Type	Exposure Limit Values	Source
Polyacrylic Acid	TWA	0.5 mg/m3	

Biological limit values:

Chemical Name	Exposure Limit Values	Source
Benzene (t,t-Muconic acid: Sampling time: End of shift.)	500 µg/g (Creatinine in urine)	ACGIH BEI (03 2013)
Benzene (SPhenylmercapturic acid: Sampling time: End of shift.)	25 µg/g (Creatinine in urine)	ACGIH BEI (03 2013)

Appropriate engineering controls: To prevent dust explosions employ bonding and grounding for operations capable of generating static electricity. Minimize dust generation and accumulation. Provide adequate ventilation.

Personal Protective Equipment:

Respiratory protection: Local Exhaust
Hand protection: Protective gloves made of rubber or neoprene.
Eye protection: Use tight fitting goggles if dust is generated.
Collective emergency equipment: Eye fountain.
Skin and Body Protection: Suitable protective clothing.
Hygiene measures: Handle in accordance with food industrial hygiene and safety practice.

Measures related to the Environment: No particular measures.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	
Physical state:	Solid
Form:	Powder
Color:	White
Odor:	Slight acetic
pH (1% Water):	2.5 – 3.0
Relative Density (20°C):	Not determined
Vapor density:	Not determined
Boiling Point:	Not determined
Freezing Point:	Not determined
Melting point:	Not determined
Evaporation rate:	Not determined
Flammability (solids, gas):	Not determined
Vapor pressure:	Not determined
Bulk density:	< 0.24 g/ml 77°F (25°C)
Dust explosion properties:	157 - 193 m.b_/s
Minimum ignition energy:	25 - 50 mJ
Minimum ignition temperature:	Approximate 896°F (480°C)
Volume Resistivity:	1.84x 10+16 ohm-cm
Percent volatile:	< 2% (Percent by Weight)
Flash point:	Not applicable
Oxidizing properties:	Non oxidizing material according to EC criteria.
Solubility:	
In water:	Material will swell in water
In organic solvents:	Not determined
Log P:	Not determined

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable under ordinary conditions of use and storage up to one year then re-test to full product specifications to extend shelf life
Hazardous reactions:	None known
Conditions to avoid:	Static discharge, moisture & heat

Materials to avoid: No dangerous reaction known with common products.

Hazardous decomposition products: Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide and other products of incomplete combustion.

SECTION 11. TOXICOLOGICAL INFORMATION

Ingestion: Not Determined
Dermal: Not Determined
Ocular: Not Determined
Inhalation: Not Determined

Acute toxicity data:
Oral: Not classified for acute toxicity based on available data
Dermal: Not classified for acute toxicity based on available data

Inhalation: Avoid inhalation of dust. Animal studies indicate the inhalation of respirable polyacrylate dust may cause inflammatory changes in the lung. Persons with sensitive airways (e.g., asthmatics) may react to vapors. Breathing of dust may cause coughing, mucous production, and shortness of breath. Not classified for acute toxicity based on available data.

Skin Corrosion/Irritation: Classification: Not irritating (Read across); Rabbit.
Remarks: Pre-existing skin conditions may be aggravated by prolonged or repeated exposure. Contact dermatitis may occur in sensitive individuals under extreme and unusual conditions of prolonged and repeated contact, such as high exposure accompanied by elevated temperature and occlusion by clothing. This effect may be the result of the product's hygroscopic properties, abrasion, or pH. Not classified as a primary skin irritant.

Serious Eye Damage/Eye Irritation: Classification: Not irritating (Read across); Rabbit.
Remarks: Particles in the eyes may cause irritation and smarting.
Remarks: Not classified as a primary eye irritant.

Respiratory sensitization: Not Determined

Skin sensitization: Classification: Not a skin sensitizer. (Read across) Not a skin sensitizer.

Specific Target Organ Toxicity - Single Exposure:
Benzene: Nose, throat and lung irritant
Acrylic Acid: Respiratory tract irritation

Aspiration Hazard: Not determined

Other effects: This material readily absorbs moisture and may become thick and gelatinous upon contact with mucous membranes of the eye, or upon inhalation into the nasal passages.

Chronic Effects:
Carcinogenicity:

Product:	Not determined
Benzene:	IARC 1: Carcinogenic to humans

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Benzene:	Overall evalutation: 1. Carcinogenic to humans

US. National Toxicology Program (NTP) Report on Carcinogens:

Benzene:	Known to be human carcinogen

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

Benzene:	Cancer

Germ Cell Mutagenicity:

Benzene:	In vitro mutagenicity testing have yielded mixed results
Acrylic Acid:	Results of vitro mutagenicity tests have been positive
Benzene:	Mutagenic in vivo in both somatic cells and germ cells
Acrylic Acid:	Results of in vivo mutagenicity tests have been negative

Reproductive toxicity: Not determined

Specific Target Organ Toxicity - Repeated Exposure:

Product:	A two-year inhalation study in rats exposed to a respirable, waterabsorbent sodium polyacrylate dust resulted in lung effects such as inflammation, hyperplasia, and tumors. There were no observed adverse effects at exposures of 0.05 mg/m3. In addition, long-term medical monitoring of potentially exposed workers has not revealed lung effects such as those observed in the rat. However, the inhalation of respirable dusts should be avoided by implementing respiratory protection measures and observing the recommended permissible exposure limit of 0.05 mg/m3.
Benzene:	Chronic exposure to benzene has been reported to cause bone marrow abnormalities and adverse blood effects including anemia. Progressive deterioration of hematopoietic function expressed as a decrease in absolute lymphocyte count is the most sensitive indicator of benzene exposure. Dermal: Target Organ(s): blood formation system Inhalation: Target Organ(s): blood formation system Oral: Target Organ(s): blood formation system
Acrylic Acid:	Prolonged or repeated exposure may cause kidney damage. Unknown: Target Organ(s): Kidney

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Fish:

Product:	LC 50 (Bluegill Sunfish, 96 h): 580 mg/l
Benzene:	LC 50 (Bluegill Sunfish, 4 d): 22 mg/l
	LC 50 (Rainbow Trout, 4 d): 5.3 mg/l
	LC 50 (Fathead Minnow, 32 d): > 1.6 mg/l
Acrylic Acid:	LC 50 (Rainbow Trout, 4 d): 27 mg/l

Aquatic Invertebrates:

Product:	EC 50 (Water flea (Daphnia magna), 48 h): 174 mg/l
Benzene:	EC 50 (Water flea (Daphnia magna), 2 d): 10 mg/l
Acrylic Acid:	EC 50 (Water flea (Daphnia magna), 2 d): 95 mg/l

Toxicity to Aquatic Plants:

Benzene:	EC 50 (Green algae (Selenastrum capricornutum), 3 d): 100 mg/l
Acrylic Acid:	EC 50 (Green algae (Selenastrum capricornutum), 3 d): 0.13 mg/l

Toxicity to soil dwelling organisms: Not determined
Sediment toxicity: Not determined
Toxicity to terrestrial plants: Not determined
Toxicity to Above-Ground Organisms: Not determined

Toxicity to microorganisms:

Benzene:	EC 50 (Bacteria, 1 d): 13 mg/l
Acrylic Acid:	EC 50 (Sludge, 0.1 d): 900 mg/l

Persistence and Degradability Biodegradation:

Benzene:	OECD TG 301 F, 96%, 28 d, Readily biodegradable
Acrylic Acid:	OECD TG 301 D, 80%, 28 d, Readily biodegradable

Bioaccumulative Potential Bioconcentration Factor (BCF): Not determined

Partition Coefficient n-octanol / water (log Kow):

Benzene:	Log Kow: 2.13 (calculated)
Acrylic Acid:	Log Kow: 0.46 (calculated)

Mobility: Not determined
Other Adverse Effects: Not determined

SECTION 13. DISPOSAL CONSIDERATIONS

Residues from product

Prohibition: Do not allow the product to be released into the Environment.
Destruction/Disposal: Dispose of in accordance with relevant local regulations.

Contaminated packaging

Decontamination/cleaning: Cleaning is not required prior to disposal.
Destruction/Disposal: Container packaging may exhibit hazards.

Note: Take all necessary precautions when disposing of this product according to local regulations.

SECTION 14. TRANSPORT INFORMATION

Labeling of the Mixture:
UN Number: UN 3077
UN Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. [Benzene (INCI)]

Transport Hazard Class(es):
Class: 9
Label(s): 9
Packing Group: 111
Marine Pollutant: No
Special Precautions for User: None established
Reportable quantity: Benzene 10 lbs

Transport/Additional Information:

IMDG Remarks: Not regulated for US DOT Ground Transport in non-bulk containers
IATA Remarks: Not regulated

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: None known.

The above regulatory prescriptions are those valid on the date of publication of this sheet. However, given the possible evolution of transport regulations for hazardous materials and in the event of the MSDS in your possession dating back more than 12 months, it is advisable to check their validity with your sales office.

SECTION 15. REGULATORY INFORMATION

Labeling/Restrictions:

EC regulations: Benzen is listed in Annex II (List of Substances Prohibited in Cosmetic Products) of Regulation (EC) No 1223/2009 – (EC) 2009/552 – as a constituent of other substances, or in mixtures, in concentrations equal to, or greater than 0.1% by weight

USA Regulations:

Restrictions: This product may contain chemical(s) known to the state of California to cause cancer and/or birth defects. Additional information can be received upon request.

Canada Regulations:

Restrictions: Benzene is listed in Part 1, with a Hazard Category (C = combustible) under schedule 1. It is subjected to the reporting of a release in section 18 of the Environmental Emergency Regulations, 2019 if it meets the minimum concentration of 1% (mass/mass) and is not part of exclusions in 2(2).

Brazil Regulations: Benzene is listed on the List of Prohibited Substances according to Resolution RDC n°79, of August 28, 2000

Further regulations

United Kingdom: Handle in accordance with relevant British regulation: control of substance Hazardous to Health Regulations Environmental Hygiene Guidance: EH40
Workplace Exposure Limits (revised annually)

Korea regulations:
Industrial safety and hygiene regulation: No
Hazardous material control regulation: No
Fire prevention regulation: No

Other regulations:

EINECS inventory status:	Polyacrylic Acid:	N/A
	Benzene:	200-753-7
	Acrylic Acid:	201-117-9
TSCA inventory status:	Exempt	
AICS inventory status:	9003-01-4 & 71-43-2 & 79-10-7	
Canadian (CEPA DSL) inventory status:	Listed as 2-Propenoic acid, homopolymer (DSL) & Benzene (DSL) & Acrylic acid (and its salts) (DSL)	
Japan (MITI list):	Polyacrylic Acid & Benzene** & Acrylic Acid	
Korea:	Polyacrylic Acid^ & Benzene^ & Acrylic Acid^	
China inventory status:	Not Listed: Benzene & Acrylic Acid Listed: Polyacrylic Acid	
Philippines inventory status:	Listed as 2-Propenoic acid, homopolymer & Benzene & 2-Propenoic acid	

*Listed on 2010 INCI Standard Chinese Name Directory
**Not listed on Cosmetic-Info database (or) on Restricted List
^Not listed in 2004 CTFA Dictionary – Registered with Personal Care Products Council

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the products described in this sheet. The user's attention is drawn to the possible existence of additional provision which complete these regulations. Please refer to all applicable international, national and local regulations and provisions

SECTION 16. OTHER INFORMATION

Prohibited uses:	For specific uses, food industry, ask the manufacturer for more information.
Last Revision Date:	04/14/2025
Preparation Date:	10/08/2020
MSDS summary of changes	Revision to INCI in Section 3.

The information given is based on our knowledge of this product, at the time of publication in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than which it was intended. This is not in any way excuse the user from knowing and applying all the regulations governing their activity. It is sole responsibility of the user to take all precautions required in handling the product. The purpose of mandatory regulation mentioned is to help the user to fulfill his obligations regarding the use of products. This information is not exhaustive, this is not exonerate the user from ensuring that legal obligations other than those mentioned, relating to the use and storage.