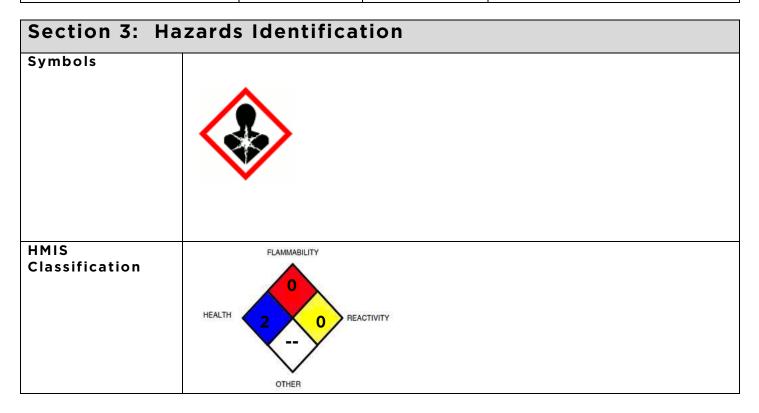


Safety Data Sheet

Section 1: Product & Company Identification		
Product Name:	Carbenicillin Disodium Salt	
Product #:	C-1385	
Synonyms:	Carbecin; Microcillin; Pyocianil; Hyoper; Geopen; Pyopen; Fugacillin; Gripenin	
Supplier:	AG Scientific Holdings, LLC 9950 Scripps Lake Drive, Suite 104 San Diego, CA 92131 Tele# + 858-452-9925	
Emergency Tele#:	ChemTel, Tele# in USA 1-800-255-3924, International 1-813-248-0585	

Section 2: Composition / Information on Ingredients			
Component	CAS#	EC #	% Composition
Carbenicillin disodium	4800-94-6	225-360-8	≥92.0





NFPA	FLAMMABILITY
Classification	HEALTH O O THER O REACTIVITY

Section 4: First Aid Measures

General	Consult a doctor and show this safety data sheet.
Overview:	
Inhalation:	Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
Skin:	Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.
Eyes:	Flush with copious amounts of water for at least 15 minutes. Consult a doctor.
Ingestion:	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.
	See section 11 for more detailed information on health effects & symptoms.

SECTION 5: Fire Fighting Measures

Flammability of	No data available
the product:	
Extinguishing	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
Media:	
Hazardous	Carbon oxides, Nitrogen oxides (NOx), Sulfur oxides.
thermal	
(de)composition	
products:	
Special Fire	Wear suitable protective clothing to prevent contact with skin and eyes and
Fighting	self-contained breathing apparatus.
Procedures:	
Flash Point:	No data available

Section 6: Accidental Release Measures

Personal	Do not take action without suitable protective clothing - see section 8 of SDS.
Precautions:	Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid
	breathing vapors, mist, dust, or gas



Environmental Precautions:	Do not let product enter drains.
Methods for Clean-up:	Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

SECTION 7: Handling & Storage

Storage:	Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Keep in a dry place. Recommended storage temperature 2 - 8°C.
Handling:	Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin, and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

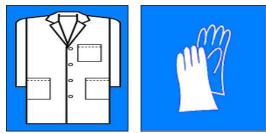
SECTION 8: Exposure controls / Personal Protection

Respiratory Protection:



Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Skin and Body:



Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.



	Wear appropriate protective clothing. Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Eyes:	Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Ventilation/Engineering Measures:	Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.
Hygiene:	Handle in accordance with good industrial hygiene and safety practice.
Other:	Do not let product enter drains.

SECTION 9: Physical and Chemical Properties		
Appearance &	White to off-white powder	
Odor:		
Formula	$C_{17}H_{16}N_2Na_2O_6S$	
Molecular Wt.	422.4	
Melting Pt.	>200°C	
Boiling Pt.	738°C	
Density:	400°C	
Vapor Pressure:	No data available	
Evaporation Rate:	No data available	
Vapor Density:	No data available	
Solubility:	Water	
Flash Point:	No data available	
Autoignition	No data available	
Temp:		

SECTION 10: Stability and Reactivity		
Stability:	Stable under recommended storage conditions.	
Hazardous	Carbon monoxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx),	
decomposition products:	Sulfur oxides	



Materials to Avoid:	Strong oxidizing agents
Conditions to avoid:	Exposure to moisture may affect product quality.

SECTION 11: Toxicological Information

	5
RTECS#:	N/A
ACUTE Toxicity:	LD50 Oral = 10 g/kg (Rat)
CHRONIC Toxicity:	N/A
Chronic Exposure: Carcinogen: Mutagen: Teratogen: Reproductive:	 IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC. AGGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, potential human carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated human carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as known or potential human carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as known or potential human carcinogen by OSHA. EPA: No classification on carcinogenic data is available from EPA

SECTION 12: Ecological Information		
Ecotoxicity:	No data available	
Mobility:	No data available	
Persistence and	No data available	
degradability:		
Bioaccumulative	No data available	
potential:		
Other adverse	No data available	
effects:		
Corrosivity	No data available	
Characteristic:		
General Notes:	To the best of our knowledge, the chemical, physical and toxicological	
	properties have not been thoroughly investigated.	

SECTION 13: Disposal Considerations	
Residue Waste or Unused product:	Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.



Contaminated	Dispose of container and unused contents in accordance with federal,
Packaging:	state and local requirements.

SECTION 14: Transportation Information

UN ID#:	N/A
ADR / RID (LAND):	Not regulated
DOT regulations:	Not regulated
IMDG/IMO (SEA):	Not regulated
IATA/DGR (AIR):	Not regulated
Special Provisions:	N/A

SECTION 15: Regulatory Information	
Health Phrases:	H317 May cause an allergic skin reaction H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled H335 May cause respiratory irritation
Risk Phrases:	 P261 Avoid breathing dust/fume/gas/mist/vapors/spray. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P284 Wear respiratory protection P285 In case of inadequate ventilation wear respiratory protection
Safety Phrases:	 P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P321 Specific treatment (see. on this label). P333 + P313 If skin irritation or rash occurs: Get medical advice/attention. P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. P362 + P364 Take off contaminated clothing and wash before reuse. P363 Wash contaminated clothing before reuse P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P501 Dispose of contents/ container to an approved waste disposal plant.
EU Regulations:	N/A
US Regulations:	TSCA: No products were found California Proposition 65: No products were found New Jersey State Right to Know: Listed Pennsylvania State Right to Know: Listed
U.S. Federal	SARA 302/304 emergency planning and notification: No products were
Regulations:	found.



	SARA 311/312 MSDS distribution-chemical inventory-hazard
	identification: Acute Health Hazard, Chronic Health Hazard
	SARA 313 toxic chemicals notification and release reporting: No products were found.
	Clean Water Act (CWA) 307: No products were found.
	Clean Water Act (CWA) 311: No products were found.
	Clean Air Act (CAA) 112 accidental release prevention: No products were found.
	Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
	Clean Air Act (CAA) 112 regulated toxic substances: No products were found.
	OSHA: No products were found.
WHMIS (Canada):	This product has been classified in accordance with the hazard criteria of
	the Controlled Products Regulations (CPR) and the SDS contains all the
	information required by the CPR.

SECTION 16: Other Information

LIABILITY STATEMENT: The above information is believed to be correct but does not purport to be allinclusive and shall be used only as a guide. AG Scientific shall not be held liable for any damages resulting from handling or from contact with the above product. AG Scientific products are for research purposes only. Not for human use or consumption.