SAFETY DATA SHEET

Revision date 20-October-2020

1. Identification		
Product identifier		
Product Name	METHENAMINE, GRANULAR	
Other means of identification		
Product Code(s)	ME120	
UN/ID no	UN1328	
Synonyms	None	
Recommended use of the chemical and restrictions on use		
Recommended use	No information available	
Restrictions on use	No information available	
Details of the supplier of the safety data sheet		
Supplier Address Spectrum Chemical Mfg. Corp. 14422 South San Pedro St. Gardena, CA 90248 (310) 516-8000		

Emergency telephone number

Emergency Telephone

Chemtrec 1-800-424-9300

2. Hazard(s) identification

Classification

Serious eye damage/eye irritation	Category 2B
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Flammable solids	Category 2

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

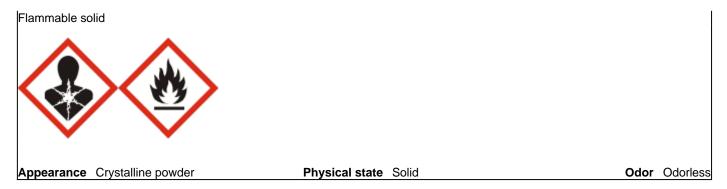
Danger

Hazard statements

Causes eye irritation May cause allergy or asthma symptoms or breathing difficulties if inhaled May cause an allergic skin reaction



Revision Number 2



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Avoid breathing dust/fume/gas/mist/vapors/spray In case of inadequate ventilation wear respiratory protection Contaminated work clothing must not be allowed out of the workplace Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking Ground/bond container and receiving equipment Use explosion-proof electrical/ ventilating / lighting/ .? / equipment Wear protective gloves/eye protection/face protection

Precautionary Statements - Response

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 IF ON SKIN: Wash with plenty of water and soap If skin irritation or rash occurs: Get medical advice/attention Wash contaminated clothing before reuse IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing If experiencing respiratory symptoms: Call a POISON CENTER or doctor In case of fire: Use CO2, dry chemical, or foam to extinguish

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

Causes mild skin irritation.

3. Composition/information on ingredients

Substance

Chemical name	CAS No	Weight-%	Trade secret
Methenamine	100-97-0	100	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get immediate medical advice/attention.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open

	while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.	
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.	
Ingestion	May produce an allergic reaction. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.	
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. See section 8 for more information.	
Most important symptoms and effects, both acute and delayed		
Symptoms	May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives. Prolonged contact may cause redness and irritation.	
Indication of any immediate medical attention and special treatment needed		
Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.	

5. Fire-fighting measures

Suitable Extinguishing Media Large Fire	Dry chemical. Carbon dioxide (CO2). water spray. Alcohol resistant foam. CAUTION: Use of water spray when fighting fire may be inefficient.	
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.	
Specific hazards arising from the chemical	risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Product is or contains a sensitizer. May cause sensitization by inhalation and skin contact. May cause sensitization by skin contact.	
Hazardous combustion products	Carbon Monoxide, Carbon Dioxide. Nitrogen oxides (NOx).	
Explosion data Sensitivity to mechanical impact none.		
Sensitivity to static discharge	yes.	
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.	

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Keep out of drains, sewers, ditches and waterways.
Methods for cleaning up	Take precautionary measures against static discharges. Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Provide extract ventilation to points where emissions occur. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage ConditionsVery hygroscopic; protect from moisture. Keep containers tightly closed in a dry, cool and
well-ventilated place. Keep at a temperature not exceeding 25 °C. Keep away from heat,
sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static
electricity). Keep in properly labeled containers. Do not store near combustible materials.
Keep in an area equipped with sprinklers. Store in accordance with the particular national
regulations. Store in accordance with local regulations. Store locked up. Keep out of the
reach of children.

8. Exposure controls/personal protection

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Appropriate engineering controls

Engineering controls	Showers	
	Eyewash stations	
	Ventilation systems.	

Individual protection measures, such as personal protective equipment

Eye/face protection	Tight sealing safety goggles.
Hand protection	Wear suitable gloves. Impervious gloves.
Skin and body protection	Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

9. Physical and chemical properties

Information on basic physical and chemical properties				
Physical state	Solid			
Appearance	Crystalline powder			
Color	colorless; white			
Odor	Odorless			
Odor threshold	No information available			
Odor threshold				
Property_	Values	Remarks • Method		
рН	no data available	None known		
Melting point / freezing point	263 - 280 °C / 505.4 - 536 °F	None known		
Boiling point / boiling range	no data available	None known		
Flash point	250 °C / 482 °F	None known		
Evaporation rate	no data available	None known		
Flammability (solid, gas)	no data available	None known		
Flammability Limit in Air		None known		
Upper flammability or explosive limits	No data available			
Lower flammability or explosive limits	No data available			
Vapor pressure	No data available	None known		
Vapor density	4.9	None known		
Relative density	1.33	None known		
Water solubility	Soluble in cold water	None known		
Solubility(ies)	Soluble in Ethanol	None known		
	Insoluble in diethyl ether			
	Insoluble in Chloroform			
	Insoluble in Alcohol			
Partition coefficient	-2.84	None known		
Autoignition temperature	> 371 °C / 699.8 °F	None known		
Decomposition temperature		None known		
Kinematic viscosity	no data available	None known		
Dynamic viscosity	No data available	None known		
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Other information				
Explosive properties	No information available			
Oxidizing properties	No information available			
Softening point	No information available			
Molecular weight	140.19			
VOC Content (%)	No information available			
Liquid Density	No information available			
Bulk density	No information available			
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10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Heat, flames and sparks.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information	
Inhalation	Specific test data for the substance or mixture is not available. May cause sensitization in susceptible persons. (based on components).
Eye contact	Specific test data for the substance or mixture is not available. Causes eye irritation. May cause redness, itching, and pain.
Skin contact	Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). May cause sensitization by skin contact. Causes mild skin irritation.
Ingestion	Specific test data for the substance or mixture is not available. May cause additional affects as listed under "Inhalation".
Symptoms related to the physi	cal, chemical and toxicological characteristics
Symptoms	Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

eyes. Prolonged contact may cause redness and irritation.

Coughing and/ or wheezing. Itching. Rashes. Hives. May cause redness and tearing of the

Acute toxicity

Numerical measures of toxicity

12. Ecological information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Methenamine	> 20000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
100-97-0			

Delayed and immediate effects as well as chronic effects from short and long-term exposure

ay cause skin irritation. Classification based on data available for ingredients. lassification based on data available for ingredients. Irritating to eyes. lay cause sensitization by inhalation. May cause sensitization by skin contact. o information available.
o information available.
o information available. o information available. o information available.
o information available.
o information available.

Ecotoxicity				
Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea

			microorganisms	
Methenamine 100-97-0	-	LC50: 44600 - 55600mg/L (96h, Pimephales promelas)	-	EC50: 29868 - 43390mg/L (48h, Daphnia magna)
Persistence and degradability BioaccumulationNo information available. Inherently biodegradable.				
Other adverse effects No information available.		on available.		

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products	Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Empty containers pose a potential fire and explosion hazard. Do not cut, puncture of weld containers.

14. Transport information

DO	Т
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DOT UN/ID no Proper Shipping Name: Hazard class Packing group: Special Provisions Marine Pollutant Description: Emergency Response Guide Number	UN1328 Hexamethylenetetramine 4.1 III A1, IB8, IP3, T1, TP33 Severe Marine Pollutant UN1328, Hexamethylenetetramine, 4.1, III 133
<u>TDG</u> UN-No: Proper Shipping Name: Hazard class Packing Group: Description:	UN1328 Hexamethylenetetramine 4.1 III UN1328, Hexamethylenetetramine, 4.1, III
<u>MEX</u> UN-No Proper Shipping Name Hazard class Packing Group Description	UN1328 Hexamethylenetetramine 4.1 III UN1328, Hexamethylenetetramine, 4.1, III
ICAO (air) UN-No: Proper Shipping Name: Hazard class Packing Group: Description:	UN1328 Hexamethylenetetramine 4.1 III UN1328, Hexamethylenetetramine, 4.1, III
IATA UN number Proper Shipping Name: Transport hazard class(es) Packing group Description:	UN1328 Hexamethylenetetramine 4.1 III UN1328, Hexamethylenetetramine, 4.1, III

IMDG UN number Proper shipping name Transport hazard class(es) Packing group EmS-No Marine pollutant Description	UN1328 Hexamethylenetetramine 4.1 III F-A, S-G NP1 UN1328, Hexamethylenetetramine, 4.1, III
<u>RID</u> UN number Proper Shipping Name: Transport hazard class(es) Packing group Classification code Description: Labels	UN1328 Hexamethylenetetramine 4.1 III F1 UN1328, Hexamethylenetetramine, 4.1, III 4.1
ADR UN number Proper Shipping Name: Transport hazard class(es) Packing group Classification code Tunnel restriction code Description: Labels	1328 Hexamethylene-tetramine 4.1 III F1 (E) 1328, Hexamethylene-tetramine, 4.1, III, (E) 4.1
ADN UN/ID No Proper shipping name Transport hazard class(es) Packing Group Classification code Description Hazard label(s) Limited quantity (LQ) Equipment Requirements	UN1328 Hexamethylenetetramine 4.1 III F1 UN1328, Hexamethylenetetramine, 4.1, III 4.1 5 kg PP

15. Regulatory information

International Inventories

TSCA

Complies

DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	This product complies with ENCS:
IECSC	This product complies with China:
KECL	Complies
PICCS AICS	Complies All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA				
Health hazards	2			
Flammability 1				
Instability 0				
	emical properties -			
HMIS				
Health hazards	2 *			
Flammability 1	-			
Physical hazards	. 0			
Personal protect				
Chronic Hazard Star		* = Chronic Health Hazard		
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Key or leaend to	abbreviations and a	cronyms used in the s	afetv data sheet	
		TROLS/PERSONAL PR		
TWA	TWA (time-weighted		STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value		• •	
Coming				
Kev literature ref	erences and sources	s for data used to com	pile the SDS	
•		ase Registry (ATSDR)		
0,	al Protection Agency (5,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
European Food Safety Authority (EFSA)				
	tal Protection Agency			
(Guideline Level(s) (AE	/		
rioute Exposule G				

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set World Health Organization

Revision date	20-October-2020
Revision Note	No information available.
Disclaimer	

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet