SAFETY DATA SHEET

Product: MARC 209 NEW GENERATION LAUNDRY DETERGENT POWDER

Form R04132

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER AND NAME: MARC 209 NEW GENERATION LAUNDRY DETERGENT POWDER

SDS DATE: 1/30/15

SUPPLIER: Mid-American Research Chemical Corp. **ADDRESS: P. O. Box 927 Columbus, NE 68602-0927**
PHONE: 402-564-7104 FAX: 402-563-1290
EMERGENCY PHONE: InfoTrac 1-800-535-5053
E-MAIL: marc@marc1.com WEBSITE: www.marc1.com

RECOMMENDED USE:

PREPARED BY: MARC

SECTION 2: HAZARDS IDENTIFICATION

CLASSIFICATION: Serious eye damage/eye irritation.

SIGNAL WORD AND PRECAUTIONARY STATEMENTS: **WARNING:** Causes serious eye irritation.

POTENTIAL HEALTH EFFECTS: See Section 11 for more information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Specific percentages may be claimed as a trade secret.

INGREDIENT	CAS NO.	TLV	% WT.
Sodium carbonate	497-19-8		30-60
4-Nonylphenol, branched, ethoxylated	127087-87-0		5-10
Pentasodium triphosphate	7758-29-4		1-5
Disodium metasilicate	6834-92-0		1-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove contact lenses, if present and easy to do so. Continue to rinse for at least 10 minutes. Get medical attention.

SKIN: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

INGESTION: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. **DO NOT INDUCE VOMITING** unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

INHALATION: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY:

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

SPECIFIC TREATMENTS: No specific treatment.

PROTECTION OF FIRST-AIDERS: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11).

SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

SUITABLE EXTINGUISHING MEDIA: Use an extinguishing agent suitable for the surrounding fire.

UNSUITABLE EXTINGUISHING MEDIA: None known.

SPECIAL FIRE FIGHTING PROCEDURES/ PROTECTIVE EQUIPMENT: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or with suitable training. Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

UNUSUAL FIRE AND EXPLOSION HAZARDS: No specific fire or explosion hazard.

HAZARDOUS DECOMPOSITION BY-PRODUCTS: Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides, phosphorus oxides, metal oxide/oxides.

SECTION 6: ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES: (For non-emergency personnel) No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

PROTECTIVE EQUIPMENT: (For emergency responders) If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel" (above).

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: **SMALL SPILL:** Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose via a licensed waste disposal contractor. **LARGE SPILL:** Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. NOTE: See Section 1 for emergency contact information and Section 13 for waste disposal.

ENVIRONMENTAL PRECAUTIONS: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

SECTION 7: HANDLING AND STORAGE

GENERAL HANDLING: (Protective measures) Put on appropriate personal protective equipment (see Section8). Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

OTHER PRECAUTIONS: Use only according to label directions. If unsure about safe use, contact your supervisor immediately.

KEEP OUT OF REACH OF CHILDREN! CAREFULLY READ ENTIRE LABEL BEFORE USE!
If medical advice is needed, have product container or label at hand.

STORAGE: Store in accordance with local regulations. Store in original container protected from direct sunlight in cool, dry well –ventilated area, away from incompatible materials and food and drink. Keep container tightly closed and sealed until ready to use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

ADVICE ON GENERAL OCCUPATIONAL HYGIENE: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures .

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Specific percentages may be claimed as a trade secret.

INGREDIENT	CAS NO.	TLV	% WT.
Sodium carbonate	497-19-8		30-60
4-Nonylphenol, branched, ethoxylated	127087-87-0		5-10
Pentasodium triphosphate	7758-29-4		1-5
Disodium metasilicate	6834-92-0		1-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

OCCUPATIONAL EXPOSURE LIMITS: None

ENGINEERING CONTROLS: Good ventilation should be sufficient to control worker exposure to airborne contaminants.

ENVIRONMENTAL EXPOSURE CONTROLS: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

VENTILATION : See Engineering Controls above.

RESPIRATORY PROTECTION: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

EYE/FACE PROTECTION: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

SKIN PROTECTION/PROTECTIVE GLOVES: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Ensure that eyewash stations and safety showers are close to the workstation.

WORK HYGIENIC PRACTICES: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE-	
PHYSICAL STATE/COLOR:	Solid. White.
ODOR:	Lemon.
SOLUBILITY IN WATER:	Not available.
SPECIFIC GRAVITY:	15.66 lbs/cu ft
MELTING POINT:	Not available.
BOILING POINT:	Not available.
pH:	10.5 to 11.5 [Conc. (% w/w): 1%]
FLASH POINT:	Closed cup: Not applicable.
EVAPORATION RATE:	Not available.
FLAMMABILITY LIMITS:	Not available.
VAPOR PRESSURE (mmHg):	Not available.
VAPOR DENSITY (AIR = 1):	Not available.
PARTITION COEFFICIENT, n-OCTANOL/WATER:	Not available.
AUTO-IGNITION TEMPERATURE:	Not available.
DECOMPOSITION TEMPERATURE:	Not available.
VISCOSITY:	Not available.

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: No specific test data related to reactivity available for this product or its ingredients.

STABILITY: Stable

CONDITIONS TO AVOID: No specific data.

INCOMPATIBILITY (MATERIAL TO AVOID): No specific data.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

HAZARDOUS POLYMERIZATION: N/A. **CONDITIONS TO AVOID (POLYMERIZATION):** N/A.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Sodium carbonate	**LD50 Oral**	**Rat**	**4090 mg/kg**	**-**
4-Nonylphenol, branched, ethoxylated	**LD50 Dermal**	**Rabbit**	**2830 mg/kg**	**-**
Pentasodium triphosphate	**LD50 Oral**	**Rat**	**1410 mg/kg**	**-**
Disodium metasilicate	**LD50 Oral**	**Rat**	**3120 mg/kg**	**-**
	LD50 Oral	**Rat**	**1153 mg/kg**	**-**

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Sodium carbonate	Eyes – Mild irritant	Rabbit	-	0.5 minutes 100 milligrams	-
	Eyes – Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes – Severe irritant	Rabbit	-	50 milligrams	-
	Skin – Mild Irritant	Rabbit	-	24 hours 500 milligrams	-
Pentasodium triphosphate	Skin – Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
Disodium metasilicate	Skin – Moderate irritant	Guinea Pig	-	24 hours 250 milligrams	-
	Skin – Severe irritant	Human	-	24 hours 250 milligrams	-
	Skin – Severe irritant	Rabbit	-	24 hours 250 milligrams	-

Sensitization: Not available.

Mutagenicity: Not available.

Carcinogenicity: Not available.

Reproductive toxicity: Not available.

Teratogenicity: Not available.

Specific target organ toxicity (single exposure): Not available.

Specific target organ toxicity (repeated exposure): Not available.

Aspiration hazard: Not available.

Information on the likely: Not available
Routes of exposure

Potential acute health effects
Eye Contact: Causes serious eye irritation.
Inhalation: No known significant effects or critical hazards.
Skin Contact: No known significant effects or critical hazards.
Ingestion: Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics
Eye Contact: Adverse symptoms may include the following: pain or irritation, watering, redness.
Inhalation: No specific data.
Skin Contact: No specific data.
Ingestion: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure
Short term exposure

Potential immediate: Effects Not available

Potential delayed effects: Not available

Long term exposure
Potential immediate: Effects Not available

Potential delayed effects: Not available

Potential chronic health effects: Not available.

General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	4999.3 mg/kg
Dermal	37889.9 mg/kg

EYES: Causes serious eye irritation.

SKIN: No known significant effects or critical hazards.

INGESTION: Irritating to mouth, throat and stomach.

INHALATION: No known significant effects or critical hazards.

ACUTE HEALTH HAZARDS: Same as above: eye, skin, ingestion and inhalation.

CHRONIC HEALTH HAZARDS: Not available

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N/A

CARCINOGENICITY: Not available.

TOXICITY TO ANIMALS: Not available.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Product/ingredient name	Result	species	Exposure
Sodium carbonate	Acute EC50 242000 µg/l Fresh water	Algae – Navicula seminulum	96 hours
	Acute EC50 176000 µg/l Fresh water	Crustaceans – Amphipoda	48 hours
	Acute EC50 265000 µg/l Fresh water	Daphnia – Daphnia magna	48 hours
	Acute EC50 300000 µg/l Fresh water	Fish – Leomis macrochirus	96 Hours
Pentasodium triphosphate	Acute EC50 276.61 mg/l Fresh water	Crustaceans – Ceriodaphnia Dubia – Neonate	48 Hours
Disodium metasilicate	Acute EC50 33.53 mg/l Fresh water	Crustaceans – Ceriodaphnia Dubia – Neonate	48 Hours
	Acute LC50 2320 ppm Fresh water	Fish – Gambusia affinis – Adult	96 Hours
	Chronic NOEC 160 mg/l Fresh water	Algae – Pseudokirchneriella subcapitata	72 Hours

PERSISTENCE AND DEGRADABILITY : Not Available.

BIOACCUMULATIVE POTENTIAL : Not Available.

MOBILITY IN SOIL
SOIL/WATER PARTITION COEFFICIENT (Koc) : Not Available.

OTHER ADVERSE EFFECTS : No known significant effects or critical hazards.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (for ground/non-bulk containers)

CONTAINER SIZES(S): Bulk, Special
PROPER SHIPPING NAME: CLEANING COMPOUND, DRY.
HAZARD CLASS: N/A
ID NUMBER: N/A
PACKING GROUP: N/A
LABEL STATEMENT: NONE

Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

United States inventory (TSCA 8b): (TOXIC SUBSTANCE CONTROL ACT): All components are listed or exempted.

Clean Air Act Section 112: (b) Hazardous Air Pollutants (HAPs) Not listed.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): NA

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): NA

SARA 311/312 CLASSIFICATION: Immediate (acute) health hazard.

SARA Title III, Section 313 Components: NA

Composition/Information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) Health hazard	Delayed (chronic) Health hazard
Sodium carbonate	30 - 60	No	No	No	Yes	No
4-Nonylphenol, branched, ethoxylated	5 – 10	No	No	No	Yes	No
Pentasodium triphosphate	1 – 5	No	No	No	Yes	No
Disodium metasilicate	1 – 5	No	No	No	Yes	No

State regulations
International regulations
Canada inventory : All components are listed or exempted.

SECTION 16: OTHER INFORMATION

HMIS/NFPA Ratings:

Health =	2
Flammability =	0
Reactivity =	0
Other =	-
Protection =	-

REVISION DATE: 1/30/15

DISCLAIMER: While the information contained herein is believed to be correct, no warranties are made with respect thereto, and all liability from reliance thereon is disclaimed.