

SAFTY DATA SHEET

SECTION 1: PRODUCT AND COMPANY INFORMATION		
PRODUCT TYPE:	Macroporous Weak Acid Cation Exchange Resin	
PRODUCT NAME:	C258 series products including C-258DQ, ionic forms of Na or H	
COMPANY ID:	General Technologies, SPC 2016 E. Spruce Circle Olathe, KS 66062 USA	
Contact Information:	<i>Direct Line</i>	913-708-8131
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DATE PREPARED:	11/5/2015	Revised: n/a

SECTION 2: HAZARD(S) IDENTIFICATION		
HAZARD STATEMENT		
<p>Hazard classification This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.</p> <p>Other hazards Slipping hazard.</p>		
COMPOSITION/INFORMATION ON INGREDIENTS		
Chemical nature:	Ion exchange and/or Adsorption process This product is a mixture.	
Component	CASRN	Concentration
Divinylbenzene cross-linked polyacrylate polymer	9052-45-3	48.0 - 56.0 %
Water	7732-18-5	44.0 - 52.0 %

SECTION 3: FIRST AID MEASURES

General advice	If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Inhalation	No emergency medical treatment necessary
Skin contact	Wash off with plenty of water.
Eye contact	Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.
Ingestion	If swallowed, seek medical attention. May cause gastrointestinal blockage. Do not give laxatives. Do not induce vomiting unless directed to do so by medical personnel.
Most important symptoms and effects, both acute and delayed	Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.
Indication of any immediate medical attention and special treatment needed Notes to physician	No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 4: FIREFIGHTING MEASURES

Suitable extinguishing media	Water. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers.
Unsuitable extinguishing media	no data available
Special hazards arising from the substance or mixture Hazardous combustion products	Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Organic acids. Hydrocarbons. Carbon monoxide. Carbon dioxide. Benzene compounds.

Unusual Fire and Explosion Hazards	This material will not burn until the water has evaporated. Residue can burn.
Advice for firefighters	
<p>Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and prevent re-ignition. Cool surroundings with water to localize fire zone.</p> <p>Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.</p>	

SECTION 5: ACCIDENTAL RELEASE MEASURES	
Personal precautions, protective equipment and emergency procedures	Spilled material may cause a slipping hazard. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.
Environmental precautions	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.
Methods and materials for containment and cleaning up	Contain spilled material if possible. Sweep up. Recover spilled material if possible. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

SECTION 6: HANDLING AND STORAGE	
Precautions for safe handling:	Static electricity can accumulate on dry beads. Leave room for expansion as dry resin swells upon wetting and/or changing ionic form. Equipment construction material should be compatible with feed, regenerant, ionic form and effluent of the ion exchange process. Keep container closed. Good housekeeping and controlling of dusts are necessary for safe handling of product.
Conditions for safe storage	Store in a dry place. Keep container tightly closed when not in use. Preferred storage temperature is in the lower half of the range given below.

Storage stability	Storage temperature: 0 - 50 °C (32 - 122 °F) Storage Period: 36 Month
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SECTION 7: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters	Exposure limits are listed below, if they exist. None established
Exposure controls Engineering controls	Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.
Individual protection measures Eye/face protection	Use safety glasses (with side shields).
Skin protection	Hand protection: Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized. Other protection: No precautions other than clean body-covering clothing should be needed.
Respiratory protection	Under intended handling conditions, no respiratory protection should be needed.

SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Appearance	Physical state Beads Color White to off-white
Odor	Aromatic
Odor Threshold	No test data available
pH	Not applicable
Melting point/range	Not applicable
Freezing point	Not applicable
Boiling point(760 mmHg)	Not applicable
Flash point	closed cup Not applicable
Evaporation Rate (Butyl Acetate = 1)	No test data available Flammability (solid, gas)
no data available	
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapor Pressure	Not applicable Relative
Vapor Density (air = 1)	Not applicable
Relative Density (water = 1)	1.04 - 1.4 Literature
Water solubility	Insoluble
Partition coefficient: noctanol/water	no data available Auto-ignition
temperature	>= 500 °C (>= 932 °F) Literature
Decomposition temperature	No test data available
Kinematic Viscosity	Not applicable
Explosive properties	No test data available
Oxidizing properties	No test data available
Molecular weight	99,999 kg/mol Calculated.

NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 9: STABILITY AND REACTIVITY	
Reactivity	No dangerous reaction known under conditions of normal use.
Chemical stability	Stable under recommended storage conditions. See Storage, Section 7.
Possibility of hazardous reactions	Polymerization will not occur.
Conditions to avoid	Exposure to elevated temperatures can cause product to decompose
Incompatible materials	Avoid contact with oxidizing materials. Oxidizing agents such as nitric acid attack organic exchange resins under certain conditions. Before using strong oxidizing agents, consult sources knowledgeable in handling such materials. The severity of the reaction with oxidizing materials can vary from slight degradation to an explosive reaction.
Hazardous	Decomposition products depend upon temperature, air supply and

decomposition products	the presence of other materials. Decomposition products can include and are not limited to: Carbon monoxide. Carbon dioxide. Aromatic compounds. Alcohols. Acrylate monomers.
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SECTION 10: TOXICOLOGICAL INFORMATION	
Acute toxicity	
Acute oral toxicity	Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. May cause choking if swallowed. Typical for this family of materials. LD50, Rat, > 2,000 mg/kg
Acute dermal toxicity	No adverse effects anticipated by skin absorption. As product: The dermal LD50 has not been determined.,
Acute inhalation toxicity	No adverse effects are anticipated from inhalation. For respiratory irritation and narcotic effects: No relevant data found. As product: The LC50 has not been determined.,
Skin corrosion/irritation	Prolonged exposure not likely to cause significant skin irritation.
Serious eye damage/eye irritation	May cause slight eye irritation. Effects may include discomfort and redness.
Sensitization	For skin sensitization: No relevant data found.
Specific Target Organ Systemic Toxicity (Single Exposure)	Evaluation of available data suggests that this material is not an STOT-SE toxicant.
Specific Target Organ Systemic Toxicity (Repeated Exposure)	No relevant data found
Carcinogenicity	No relevant data found.
Teratogenicity	No relevant data found.
Reproductive toxicity	No relevant data found.
Mutagenicity	In vitro genetic toxicity studies were negative.
Aspiration Hazard	Based on physical properties, not likely to be an aspiration hazard.

SECTION 11: ECOLOGICAL INFORMATION

Toxicity	Acute toxicity to fish Not expected to be acutely toxic, but material in pellet or bead form may mechanically cause adverse effects if ingested by waterfowl or aquatic life.
Persistence and degradability	Biodegradability: Surface photodegradation is expected with exposure to sunlight. The polymeric component is not expected to biodegrade.
Bioaccumulative potential	Bioaccumulation: No bioconcentration of the polymeric component is expected because of its high molecular weight.
Mobility in soil	In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material will sink and remain in the sediment.

SECTION 12: DISPOSAL CONSIDERATIONS

Disposal methods	DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. Landfill.
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SECTION 13: TRANSPORT INFORMATION

DOT	Not regulated for transport
Classification for SEA transport (IMO-IMDG)	Not regulated for transport
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk
Classification for AIR transport (IATA/ICAO)	Not regulated for transport

SECTION 15: REGULATORY INFORMATION

OSHA Hazard Communication Standard

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

This product is not a hazardous chemical under 29CFR 1910.1200, and therefore is not covered by Title III of SARA.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Pennsylvania Worker and Community Right-To-Know Act:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

United States TSCA Inventory (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.