Material Safety Data Sheet

Product Name: A451(Old product numbers: D301,D301(FB),D301(OH))

Macroporous Weak Base Anion Exchange Resin, Free-base or OH Form

Effective date: 10/01/06

Company Address: General Technologies, SPC

14200 Hadley St.

Overland park, KS 66223

Information Numbers:

Emergency Phone Number: 913-766-5566 / 816-590-9631 (evenings & weekends)

Fax Number: 253-663-9333 Email: info@gtspc.com

Website: http://gtspc.com/ixchange/

1. Ingredients:

Dimethylamine functionalized chloromethylated

copolymer of styr ene and divinylbenzene in

the chloride form CAS# 069011 -17 -2

Water CAS# 007732-18-5

 $This \ document \ is \ prepared \ pursuant \ to \ the \ OSHA \ Hazard \ Communication \ Standard \ (29CFR \ 1910.1200) \ . \ In \ Property \ (29CFR \ 1910.1200) \ .$

Addition, other substances not hazardous per this OSHA Standard may be listed. Where proprietary ingredient Shows, the identity may be made available as provided in this standard.

2. Physical / Chemical Data:

Boiling Point: Not Applicable

Vapor Pressure (MM HG): Not Applicable

Evaporation Rate (water = 1): 1

Appearance & Odor: White to light cream may have amine odor.

Specific Gravity: 1.2 (water = 1)

Melting Point (deg. F) NotApplicable

Solubility in Water: Insoluble

Thermal: May yield oxides of carbon and nitrogen

Vapor Density: Not Applicable

Produ	ict Hazard Rating	Scale
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Toxicity = 0	0 = Negligible
Fire = 0	1 = Slight
Reactivity = 0	2 = Moderate
Special N/A	3 = High
	4 = Extreme

3. Fire & Explosion Hazard Data

Flammable Limits: 800 ° Deg. F

Unusual Fire & Explosion Hazards: Product is not combustible until moisture is removed, Then resin starts to burn in

flame at 230 C. Autoignition occurs above 500C. Possible fire.

Combustion Products: Hazardous combustion products may include and are not Limited to: hydrocarbons,

sulfur oxides, organic sulfonates, Carbon monoxide, carbon dioxide, benzene compounds.

Extinguishing Media: Water, CO2, Talc, Dry Chemical

Special Fire Fighting Procedures: MSHA / NIOSH approved self-contained breathing gear.

4. Reactivity Data

Stability: Stable

Conditions to Avoid: Temperatures above 400 ° F

Hazardous by Products: See Section 3 above for possible combustion products.

Materials to avoid contact with: Strong oxidizing agents (i.e. nitric acid)

Hazardous Polymerization: Material does not polymerize

Storage: Store in a cool dry place

5. Health Hazards & Sara (Right to Know)

Emergency First Aid Procedures: Contact with eyes can and skins can cause irritation.

Skin Absorption: Skin absorption is unlikely due to physical properties.

Ingestion: Single dose oral LD50 has not been determined. Single Does oral toxicity is believed to be low.

No hazards anticipated from ingestion incidental to industrial exposure. \\

Inhalation: Vapors are unlikely due to physical properties.

Systemic & Other Effects: No specific data available, however, repeated exposures are not

anticipated to cause any significant adverse effects.

Carcinogenicity: Not Applicable

Sara title 3, sections 311 & 312: All ingredients are non-hazardous

6. First Aid

Eyes: irrigate immediately with water for at least 5 minutes. Mechanical irritation only.

Skin: No adverse effects anticipated by this route of exposure.

Ingestion: No adverse effects anticipated by this route of exposure incidental to proper industrial

Handling.

Inhalation: No adverse effects anticipated by this route of exposure.

7. Control Measures

Respiratory protection: Not required for normal uses if irritation occurs from breathing-get fresh air!

Eye protection: Splash goggles
Ventilation: Normal

Protective Gloves: Not required.

8. Safe handling procedures

In Case of Spills: Sweep up material and transfer to containers. Use caution the floor will be slippery!

Disposal Method: Bury resin licensed landfill or burn in approved incinerator according to local, state,

and federal regulations. For resin contaminated with hazardous material, dispose of mixture as hazardous material according to local, state and federal regulations.

9. Additional Information:

Special precautions to be

taken in handling and storage: Practice reasonable care and caution .Metal equipment should be compatible with

feed, regenerant, resin form, and effluent of that process.

TSCA Considerations: Every different salt or ionic form of an ionexchange resin is a separate chemical. If

you use an ion-exchange resin for ion-exchange purposes and then remove the byproduct resin from its vessel or container prior to recovery of the original or another
form of the resin or of another chemical, the by-product resin must be listed on the
TSCA Inventory (unless an exemption is applicable). It is the responsibility of the
customer to ensure that such isolated, recycled by-product resins are in compliance
with TSCA. Failure to comply could result in substantial civil or criminal penalties

being assessed by the Environmental Production Agency.

MSDS Status: Canadian regulatory information added.

10. Regulatory Information: (Not meant to be all-inclusive-selected regulations represented.)

Notice: The information herein is presented in good faith and believed to be accurate as of the

effective date shown above. However, no warranty, express or implied, is given.

Regulatory requirements are subject to change and may differ from one location to another, it is the buyer responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and

regulations. See MSDS Sheet for health and safety information.

11. Canadian Regulations:

WHMIS Imformation: The Canadian Workplace Hazardous Materials Information System (WHMIS)

Classification for this product is:

This product is not controlled Product under WHMIS.

Canadian TDG Information: For gui dance, the Transportation of Dangerous Good Classification for this product is Not regulated.