

CITY OF NEWTON

IN BOARD OF ALDERMEN

PUBLIC FACILITIES COMMITTEE REPORT

WEDNESDAY, JANUARY 8, 2014

Present: Ald. Crossley (Chairman), Lennon, Albright, Salvucci, Crossley, Danberg, Laredo, and Lappin

Also present: Ald. Norton

**Chairman's note:** The Public Facilities Committee did not discuss the Chapter of the Comprehensive Plan to address physical plant needs in support of current and future municipal program objectives. The discussion will take place at a date to be determined.

#416-13      NSTAR ELECTRIC petitioning for grants of location as follows:

WISWALL ROAD install 57' ± of conduit in an easterly direction from Pole #232/20# to Kerr Path.

KERR PATH install 495' ± of conduit in a southeasterly direction to Osborne Path.

OSBORNE PATH install 310' ± of conduit in a northeasterly direction from #65 Osborne Path to #49 Osborne Path. (Ward 8) [11/22/13 @ 11:24 AM]

**ACTION:**      **APPROVED 7-0**

**NOTE:**      NStar Right of Way Agent Maureen Carroll presented the request for a grant of location to install approximately 57' of conduit in Wiswall Road, 495' of conduit in Kerr Path, and 310' of conduit in Osborne Path. The petition also includes the installation of one manhole in Kerr Path and one manhole in Osborne Path. The project is being undertaken to upgrade service in the area of the project by replacing old direct bury service wires with wires encased in conduit. The use of conduit makes it much easier to repair wire, as the street does not need to be opened to make the repair. The project will take approximately two weeks to complete and NStar will begin the project as soon as the City's winter moratorium on street construction is lifted.

The public hearing was opened and no one spoke for or against the petition. Ald. Lappin moved approval, which carried unanimously.

#415-13      VERIZON NEW ENGLAND, INC. petitioning for a grant of location to install 67' ± of conduit in a northerly direction in Walnut Street from an existing manhole to 246 Walnut Street. (Ward 2) [11/19/13 @ 12:33 PM]

**ACTION:**      **APPROVED 7-0**

**NOTE:** Everette Bryan, Right of Way Engineer with EDS Engineering & Data Solutions, presented Verizon’s request to install roughly 67’ of conduit in Walnut Street, Newtonville to provide enhanced service to 246 Walnut Street. The conduit will be buried 18” below the surface of Walnut Street. There was some question of whether this portion of Walnut Street was paved within the last five years. Public Works Commissioner Turocy assured the Committee that there has been no paving on that portion of Walnut Street in the past five years. The work will begin when a City street opening permit is obtained. The public hearing was opened and no one spoke for or against the petition. Ald. Albright moved approval of the item which carried by a vote of seven in favor and none opposed.

**REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES**

#17-14 **HIS HONOR THE MAYOR** requesting authorization to transfer the sum of one million five hundred thousand dollars from Budget Reserve – Snow and Ice Removal Account to the following accounts:

Personnel Costs – Overtime  
(0140110-513001).....\$500,000  
Controllable Expenditures – Sand & Salt  
(0140110-5532).....\$1,000,000  
[12/30/13 @ 4:34 PM]

**ACTION:** **APPROVED 7-0**

**NOTE:** Commissioner of Public Works David Turocy joined the Committee to discuss the request for a transfer of \$1.5 million to supplement the Public Works Department’s storm accounts. The department began the winter season with a budget of \$1 million for snow and ice operations. The Public Works Department (DPW) has expended \$2.1 million at this point to address de-icing and snow removal operations on the city’s streets and sidewalks. The transfer of \$1.5 million will leave a \$400,000 cushion for the next storm.

Commissioner Turocy is aware that the spend rate on snow and ice operations is high. At this point all funds will be going towards snow and ice removal. An updated breakdown of the costs for snow and ice removal is attached. However, there have been three significant storm events this winter each of which has had their own unique challenges related to removal operations. At the conclusion of the first snowstorm on December 14, there was a dramatic drop-in temperature, which resulted in icing on the streets and sidewalks. The second storm on December 17 occurred during the evening commute and the third storm on January 2 lasted for thirty hours. The average cost per inch for a snowstorm is \$87,000. In addition, some of the costs can be attributed to the preparation and maintenance of the snow equipment and the purchase of \$1 million of salt at the beginning of the season. The new salt sheds are full and the salt supply is expected to last through the winter. The Commissioner reassured the Committee that there were no changes to the Department’s snow operation that resulted in higher costs.

Contractor costs have risen by 20% this year. The contract now specifies that each contractor must provide a sander. It is unlikely that all of the 20% increase can be attributed to that change. The City did not have a wealth of bidders and some bidders dropped out of the

process. The Committee asked if the City's costs for contracted snow removal are in line with other communities. The Commissioner explained that the City pays contractors by the inch for snowstorm, which is not common practice. However, it appears that the City's costs are in line with other communities. The Committee was concerned that the City was paying a premium for its snow clearing standards and practice of paying by the inch. The Committee requested that the Commissioner ask other communities what their per inch costs are and whether they pay their contractors by the inch or by the hour and provide the information to the Committee.

The City's snow melter has been successfully used at Forte Park and the Elliot Street DPW Yard. The melter is new and there is a learning process with any new equipment. The snow melter requires three operators to run the machine and approximately two hours to set up. As employees become more familiar with the machine, snow melting will become more efficient. There was an attempt to use the snow melter in the Newton Centre parking triangle. However, the operators could not level the snow melter. It was not until the machine was brought back to the City yard and mechanics looked at it that it was discovered that bracket inside the melter had jammed. It was not possible to level the machine without unjamming the bracket. The operators now know what to look for and how to repair a jammed bracket. The Commissioner plans to use the melter in village centers and at dumpsites. The snow melter is under warranty. Unfortunately, there is not a local contact for the snow melter manufacturer but the operators are learning what the issues are with the melter and how to address those issues. The committee asked the Commissioner to provide information on the volume of material processed, labor hours required to operate and a list of problems associated with the snow melter.

The Committee asked for a breakdown of the funds in reserve for snow and ice operations. The Commissioner could not provide the information immediately but will submit the information to the Finance Committee for its next meeting. (Note: An e-mail from Commissioner Turocy is attached, which was submitted to the Finance Committee on January 13, 2014.)

The Commissioner informed the Committee that all snow that is not being piled is being sent to Forte Park and the Elliot Street DPW Yard. One contractor mistakenly dumped snow being hauled from intersections in Newtonville at Elmwood Park. The Commissioner spoke with the contractor and explained that Elmwood Park is no longer a dumping site. Some Committee members were concerned that a number of corners throughout the City were piled with plowed snow. The Commissioner responded that the DPW is getting better with each storm in that aspect, as there are new plow drivers and sidewalk plow drivers that are learning the snow removal requirements. The DPW is also having contractors come back and remove snow from corners and ramps that they block. With that, Ald. Laredo moved approval of the item, which carried unanimously.

#14-14      ALD. ALBRIGHT, JOHNSON & NORTON requesting a discussion of the snow removal operations during the last storm including information on the use of brine and how it worked, the effectiveness of the new snow melter, snow dumping, and what can be done to make city sidewalks safe in the event of an ice storm.  
12/20/13 @ 4:21 PM]

**ACTION:     HELD 7-0**

**NOTE:**       Public Works Commissioner Dave Turocy started the discussion by explaining that the City is still in the process of investigating the use of brine as a pre-storm treatment for roadways. Commissioner Turocy believes that the City is going in the direction of using brine as it does improve roadways and increases public safety. The City is essentially waiting for places like the State and Town of Lexington to iron out problems like what mixture of brine to salt works best for deicing. Brine operations are very complicated systems. The Commissioner informed the Committee that Lexington has stated that they have saved 40% on salt costs. Some people attribute those saving to the use of brine; however, Lexington is now using a calibrated salting system, which was not previously used. By switching to the calibrated salting system, they use significantly less salt. It was suggested that the Commissioner look at the State of New Hampshire's snow removal website that has excellent materials on snow and ice removal operations, including green practices. The Commissioner will continue to update the Committee on the possible use of brine.

The discussion with the Commissioner continued with how the Department of Public Works is planning to address snow clearing and deicing of sidewalks. Due to climate change, it seems likely that icy sidewalks will become a common occurrence each winter creating a public safety hazard. It was pointed out that many sidewalks are treacherous this winter. The Commissioner agreed that icing is a legitimate concern and he is looking at options. The City currently has four sidewalk plows that can sand the sidewalks but there is a limited capacity for sand storage on the plows. The Department of Public Works addresses the high priority sidewalks around schools, school routes and on steep hills first. The Commissioner is developing a plan for the future of sidewalk clearing and deicing. It will be provided to the Committee when it is complete.

The next topic of discussion was related to what materials the City uses for snow removal operations. The Commissioner provided the attached material data sheet for salt and magnesium chloride. The Chair asked the Commissioner to explain the benefits and drawbacks of the materials. Commissioner Turocy stated that the City uses salt almost exclusively during storm events. Depending on road conditions, the City uses an application rate of 200-400 pounds per lane mile. The City does have areas that are designated low-salt areas that are located around bodies of water. The City treats these areas with half the rate of salt used in other areas. When the temperature falls between 10 and 20 degrees, the City uses a magnesium chloride additive to make salting more effective. The City does not use sand unless temperatures are expected to remain below 10 degrees.

Director of Sustainability Rob Garrity stated that he has looked at the City's snow operations in terms of sustainability. He found that the DPW does a good job of making sure that all equipment used is maintained and calibrated correctly, which promotes efficient operations.

Mr. Garrity added that there are other deicing options like calcium magnesium acetate but they are very expensive or in an experimental phase like beet juice. A ton of salt costs

approximately \$47 and a ton of calcium magnesium acetate costs \$1,000. The City recently purchased \$1 million of salt, which is about 21,276 tons of salt. It is cost prohibitive to purchase the calcium magnesium acetate . If he believes the next step in deicing is the use of brine as a pre-treatment for streets and he also pointed out that brine is salt. The use of brine in treating streets is still in development and there may be other better pre-treatment options available in the near future. As the Director Sustainability, Mr. Garrity feels that the DPW is going in a sensible direction and working to minimize the use of materials.

There was question regarding what department is responsible for clearing snow and ice around school buildings. The Commissioner explained that the DPW is ultimately responsible for all snow and ice operations but the Parks and Recreation Department oversees the contractors, who remove snow at the schools. Commissioner Turocy added that the school custodians are responsible for salting and sanding areas around their school after the school is cleared and the storm is over.

Ald. Albright moved hold on the item in order to receive the information to be provided by the Commissioner. The Committee voted unanimously in favor of holding the item for future discussion.

All other items before the Committee were held without discussion and the Committee adjourned at 9:20 PM.

Respectfully submitted,

Deborah Crossley, Chairman

DPW SNOW & ICE

ACCT	DESCRIPTION **Inches	BUDGET	TFERS IN	NET BUDGET	PREPWATCH STANDBY	STORM			EST COSTS 24.30	YTD	AVAIL BALANCE
						12/14 - 12/15 8.00	12/17 - 12/18 6.40	01/02 - 01/03 7.50			
0140110 511101	PART TIME & 20 HRS/WK	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
0140110 513001	REGULAR OVERTIME	\$ 200,000	\$ -	\$ 200,000	\$ 20,739	\$ 133,020	\$ 54,092	\$ 140,000 *	\$ 347,850	\$ -	\$ (147,850)
0140110 513001A	REG OVERTIME-BLDG/SCHLS	\$ 33,300	\$ -	\$ 33,300	\$ -	\$ 8,293	\$ 13,993	\$ 15,000 *	\$ 37,285	\$ -	\$ (3,985)
0140110 513004	WORK BY OTHER DEPTS.	\$ -	\$ -	\$ -	\$ 4,929	\$ 1,354	\$ 1,354	\$ 1,500 *	\$ 2,854	\$ -	\$ (2,854)
0140110 514311	SNOW STAND-BY PAY	\$ -	\$ -	\$ -	\$ -	\$ 16,677	\$ 7,965	\$ 12,500 *	\$ 42,071	\$ -	\$ (12,071)
0140110 514318	SNOW WATCH PAY	\$ 20,000	\$ -	\$ 20,000	\$ 15,835	\$ -	\$ -	\$ -	\$ 15,835	\$ -	\$ 4,165
0140110 514321	PROMPTNESS PAY STIPEND	\$ -	\$ -	\$ -	\$ 127	\$ 25	\$ -	\$ 200 *	\$ 352	\$ -	\$ (352)
	TOTAL PERSONNEL	\$ 283,300	\$ -	\$ 283,300	\$ 41,630	\$ 158,015	\$ 77,403	\$ 189,200	\$ 446,248	\$ -	\$ (162,948)
0140110 5273	RENTAL - VEHICLES	\$ 98,375	\$ -	\$ 98,375	\$ -	\$ 273,325	\$ 179,905	\$ 273,325	\$ 726,555	\$ -	\$ (628,180)
0140110 5273A	RENTAL-VEH BLDG/SCHLS	\$ 100,000	\$ -	\$ 100,000	\$ -	\$ 64,800	\$ 53,625	\$ 64,800	\$ 183,225	\$ -	\$ (83,225)
	TOTAL CONTRACTORS	\$ 198,375	\$ -	\$ 198,375	\$ -	\$ 338,125	\$ 233,530	\$ 338,125	\$ 909,780	\$ -	\$ (711,405)
0140110 52403	MOTOR VEHICLE R-M	\$ 10,212	\$ -	\$ 10,212	\$ 3,081	\$ -	\$ -	\$ -	\$ 3,081	\$ -	\$ 7,131
0140110 52409	PUBLIC PROPERTY R-M	\$ 2,992	\$ -	\$ 2,992	\$ 2,875	\$ -	\$ -	\$ -	\$ 2,875	\$ -	\$ 117
0140110 52410	SOFTWARE MAINTENANCE	\$ 98,750	\$ -	\$ 98,750	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 98,750
0140110 5386	WEATHER FORECAST SVS	\$ 1,700	\$ -	\$ 1,700	\$ 1,690	\$ -	\$ -	\$ -	\$ 1,690	\$ -	\$ 10
0140110 5460	GROUPS MAINT SUPPLIES	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
0140110 5480	GASOLINE	\$ -	\$ -	\$ -	\$ -	\$ 2,513	\$ 2,480	\$ 2,500	\$ 7,494	\$ -	\$ (7,494)
0140110 5481	DIESEL FUEL	\$ -	\$ -	\$ -	\$ -	\$ 8,063	\$ 4,701	\$ 8,000	\$ 20,754	\$ -	\$ (20,754)
0140110 5484	VEHICLE REPAIR PARTS	\$ 64,788	\$ -	\$ 64,788	\$ 62,803	\$ -	\$ -	\$ -	\$ 62,803	\$ -	\$ 1,985
0140110 5532	SAND & SALT	\$ 335,000	\$ -	\$ 335,000	\$ -	\$ 187,640	\$ 93,820	\$ 187,640 **	\$ 656,740	\$ -	\$ (321,740)
0140110 5712	REFRESHMENTS/MEALS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
0140110 5783	PRIVATE PROPERTY DAMAGE	\$ 5,000	\$ -	\$ 5,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000
	TOTAL NONPERSONNEL	\$ 518,442	\$ -	\$ 518,442	\$ 70,449	\$ 198,207	\$ 101,002	\$ 198,140	\$ 755,437	\$ -	\$ (236,995)
	GRAND TOTAL	\$ 1,000,117	\$ -	\$ 1,000,117	\$ 112,078	\$ 694,346	\$ 411,935	\$ 705,465	\$ 2,111,465	\$ -	\$ (1,111,348)

\* Personnel Costs for 1/2 - 1/3 storm are est.

\*\* All Salt Costs est.

**Sullivan Shawna**

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*From:* "Dave Turocy" <dturocy@newtonma.gov>  
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*Date sent:* Sat, 11 Jan 2014 13:01:38 -0500  
*Subject:* Snow Removal available funds  
*Copies to:* dcrossley@newtonma.gov,  
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vdanberg@newtonma.gov,  
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mlemieux@newtonma.gov,  
dwilkinson@newtonma.gov,  
rmendes@newtonma.gov,  
ssullivan@newtonma.gov  
*Priority:* normal

Finance Committee,

In advance of Monday's meeting and my request to transfer \$1.5M from snow reserves to cover snow removal costs, the question came up in Public Facilities Committee about the amount of funds originally budgeted and/or identified as reserved for snow removal. The following supplemental information is provided:

- \$1M Original DPW budget for Snow Removal
- \$1.75M Snow Reserves (from which I am asking to transfer \$1.5M)
- \$2M Free Cash portion that is identified for snow removal costs
- \$500K Inclement Weather Fund

Thus, we had identified \$5.25M in available funds that could be used to cover snow removal costs. This transfer will therefore appropriate a total of \$2.5M as the current DPW snow removal budget and have \$2.75M remaining in identified reserves for snow.

In addition, we will look to scrub salary savings and other budget reserves as necessary and available to help cover future snow removal costs.

Dave Turocy  
David F. Turocy  
Commissioner of Public Works

City of Newton  
1000 Commonwealth Avenue  
Newton Centre, MA 02459  
Phone: (617) 796-1000  
Fax: (617) 796-1050

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**INTERNATIONAL SALT**  
SPL GROUP

655 Northern Boulevard  
Clarks Summit, PA 18411  
Phone (570) 587-5000 ~ Fax (570) 586-6403  
Orders (888) 386-ISCO (4726) (toll free)

## MATERIAL SAFETY DATA SHEET (MSDS) SALT - SODIUM CHLORIDE

### SECTION I - GENERAL

Trade Name: <b>SALT</b>	C.A.S. Number: <b>7647-14-6</b>
Chemical Name: <b>SODIUM CHLORIDE</b>	Formula: <b>NaCl</b>
Molecular Weight: <b>58.4428</b>	
Address: <b>183 Tajamar Street, Office 601</b>	Contact: <b>Claudio Casanueva</b>
<b>Las Condes</b>	Phone: <b>56 (2) 2338550</b>
<b>Santiago</b>	Date issued: <b>01/2/1999</b>
<b>Chile</b>	Date Revised: <b>Same</b>

### SECTION II - FIRST AID

Emergency Phone Number: **56 (2) 2338550**  
Skin: **Wash with water**  
Eyes: **Irrigate with plenty of water**

### SECTION III - HAZARDS INFORMATION - HEALTH

Inhalation: **Inhalation of product may cause mild irritation of nose and throat**  
Ingestion: **Ingestion of large amounts (greater than 0.1 lb) may cause gastrointestinal upset.**  
Skin: **Dust may cause irritation.**  
Eyes: **Dust may cause irritation.**  
Permissible Concentration: **Air: None established Biological: No TLV established**  
Unusual Chronic Toxicity: **None**

### SECTION IV - HAZARDS INFORMATION

Flash Point °C: **Not flammable** Auto ignition Temp °C: **N/A**  
 Open Cup  Closed Cup  
Flammable Limits In Air (% by volume) - **N/A**

### SECTION V - PRECAUTIONS/PROCEDURES

Fire Extinguishing Agents Recommended: **N/A** Fire Extinguishing Agents to Avoid: **N/A**  
Special Fire Fighting Precautions: **N/A**  
Ventilation: **Local exhaust if dusty conditions prevail.**  
Normal Handling: **Avoid eye contact or prolonged skin contact.**  
Storage: **Wet or damp conditions can cause caking or corrosion of metal contact surfaces.**  
Spill or Leak: **Shovel up dry material into an empty container. Flush residue with water down local sewer.**  
Special: **Precautions/Procedures/Label Instructions: Store in cool, dry area. No special cautions or labeling are required.**

### SECTION VI - PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: **When required, use a respirator approved by NIOSH for product dust.**  
Eyes and Face: **In extremely dusty areas, chemical safety goggles should be used.**  
Hands, Arms, and Body: **Wear long-sleeved shirts and trousers for routine product handling. Gloves are optional.**  
Other Clothing and Equipment: **N/A**



**MSDS - Sodium Chloride (Salt) - International Salt Company**

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**SECTION VII - PHYSICAL DATA**

Material is (At Normal Conditions)  Liquid  Solid  Gas  \_\_\_\_\_

Appearance and Odor: **White crystalline solid. Slight saline odor.**

Boiling Point: **1465°C** Specific Gravity (H<sub>2</sub>O = 1): **2.16** Vapor Density (Air - 1): **N/A**

Melting Point: **800°C** Vapor Pressure (mm Hg at 20°C): **2.4 mm at 746.9°C**

Solubility in Water (% By Weight): **26.396 Max at 60°F** ph (20% Solution): **6.5 - 9.5**

**SECTION VIII - REACTIVITY DATA**

Stability:  Stable  Unstable

Conditions to Avoid: **Wet/damp conditions can cause caking and corrosion.**

Incompatibility (Materials to Avoid): **None provided the product is dry.**

Hazardous Decomposition Products: **None**

Hazardous Polymerization:  May Occur  Will Not Occur

Conditions To Avoid:

**SECTION IX - HAZARDOUS INGREDIENTS (Mixtures Only)**

Material or Component/ C.A.S. No.: **Sodium Chloride, CAS 7645-14-5**

Weight %:

Hazard Data (See Section J):

**SECTION X - ENVIRONMENTAL**

Degradability / Aquatic Toxicity: **Product is inorganic and may persist in the environment.**

EPA Hazardous Substance?  Yes  No If so, reportable quantity \_\_\_\_\_ 40 CFR 116 - 117

Waste Disposal Methods (Disposer Must Comply With Federal, State and Local Disposal or Discharge Laws): **Flush to sewer if permitted by applicable disposal regulations.**

RCRA Status of Unused Material: **Not a "hazardous waste."**

40 CFR 261

**SECTION XI - REFERENCES**

Permissible Concentration References:

Regulatory Standards: **FDA regulations apply to food use and USP/NF grades (21 CFR).**  
**USDA regulations apply to use in meat and poultry products.**

D.O.T. Classification: **N/A - 49 CFR**

General: **(a) Recommendations of the Salt Institute**

**SECTION XII - ADDITIONAL INFORMATION**

**This product is not for food or drug use unless material is labeled "food grade", "USP grade", or "NF grade", as applicable.**

**This product safety data sheet is offered solely for your information, consideration and investigation. Compania Minera Punta de Lobos S.A. provides no warranties, either express or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein.**



# Material Safety Data Sheet

## Section 01: Product & Company Identification

**Product Name:** MELTDOWN 30% WITH AP  
**Manufacturer:** CHEMICAL SOLUTIONS, INC  
P. O. Box 675  
Franklin, MA 02038-0675  
508-520-3900  
**Effective date:** March, 2006

**Emergency Phone Number:** 800-424-9300  
24 Hours/Day; 7 Days/Week  
**For More Information Call:** 800-637-4504  
508-520-3900

**Trade Name:** Meltdown 30% with AP  
**Material Uses:** De-icing, Anti-icing  
**WHMIS Classification:** Not Controlled  
**Chemical Family:** Inorganic Salt Solution

## Section 2: Composition and Information on Ingredients

Components	CAS #	% by Weight
Magnesium Chloride	7786-30-3	30.0%
Corrosion Inhibitor	-	0.5%

## Section 3: Physical Data

**Physical state:** Liquid  
**Odor / Appearance:** Odorless / Clear & Bright  
**Odor Threshold:** n/a  
**Specific Gravity:** 1.29 gm / ml  
**pH:** 6.0 to 9.0  
**Vapor Pressure:** n/a  
**Solubility in Water:** Soluble in water  
**% Volatile:** n/a  
**Coefficient of water / oil Distribution:** n/a  
**Vapor Density:** n/a

<b>Section 4:</b>	<b>Fire &amp; Explosion Hazard</b>
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<b>Flammability:</b>	No
<b>If yes under what Conditions:</b>	n/a
<b>Means of Extinguishing:</b>	n/a
<b>Special Procedure:</b>	None, Product can be used to extinguish fire
<b>Flash Point:</b>	n/a
<b>Upper Explosion Limit:</b>	n/a
<b>Lower Explosion Limit:</b>	n/a
<b>Auto Ignition temperature:</b>	n/a
<b>Sensitivity to Mechanical Impact:</b>	n/a
<b>Sensitivity to Static Discharge:</b>	n/a

<b>Section 5:</b>	<b>Reactivity Data</b>
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<b>Chemical Stability:</b>	Yes
<b>If No Under What Conditions:</b>	n/a
<b>Incompatibility o other Substances:</b>	Yes
<b>If So, Which ones:</b>	Bromine triflouride, sulfuric acid, sodium, methyl vinyl, zinc
<b>Reactivity under What Conditions:</b>	n/a
<b>Hazardous Decomposition Products:</b>	Chlorine Fumes are given off @ temperatures >1600C

<b>Section 6:</b>	<b>Health Hazards</b>
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<b>Route of Entry:</b>	Inhalation & ingestion
<b>Effect of Acute exposure to material:</b>	Very low toxicity value may cause irritation to eyes or skin
<b>Effect of Chronic exposure to material:</b>	Unknown
<b>Exposure limit:</b>	Unknown
<b>Synergetic Material:</b>	None
<b>Irritancy of Material:</b>	Minor Irritant
<b>Sensitivity of Material:</b>	Does Not Occur
<b>Carcinogenetic, Reproductive Effect:</b>	None

<b>Section 7:</b>	<b>First AID Measures</b>
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<b>Eye Contact:</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately
<b>Skin Contact:</b>	Remove from skin by wiping and washing thoroughly with water
<b>Inhalation:</b>	Remove victim to fresh air
<b>Ingestion:</b>	If discomfort exists, induce vomiting. Seek medical attention immediately

**Section 8: Preventative Measures**

<b>Eye Contact:</b>	Wear Safety Goggles
<b>Skin Contact:</b>	Wear Rubber Gloves, Boots & Long Sleeve Shirt
<b>Inhalation:</b>	For dusty or misty conditions, wear NIOSH approved dust or mist respirator
<b>Engineering Controls:</b>	Mechanical ventilation recommended in enclosed areas
<b>Waste Disposal:</b>	Dispose of material in government approved landfill site in accordance with local laws
<b>Handling Procedures &amp; Equipment:</b>	Wash skin and equipment with water
<b>Storage requirement:</b>	Store in cool dry area
<b>Special Shipping information:</b>	No special shipping procedures necessary

**Section 9: Preparation Information**

<b>Prepared By:</b>	Innovative Group of Companies
<b>Telephone #:</b>	508-520-3900
<b>Preparation Date:</b>	March, 2006
<b>Superseded Date:</b>	November, 2005