

**Material Safety Data Sheet**

May be used to comply with  
 OSHA's Hazard Communication Standard,  
 29 CFR 1910.1200. Standard must be  
 consulted for specific requirements.

**U.S. Department of Labor**

Occupational Safety and Health Administration  
 (Non-Mandatory Form)  
 Form Approved  
 OMB No. 1218-0072



**IDENTITY** (As Used on Label and List) ITC-213 Note: Each space on this sheet is not pre-filled. If any item is not applicable, or no information is available, the space must be marked to indicate that.

**Section I**

<b>Manufacturer's Name</b> <u>INTERNATIONAL TECHNICAL CERAMICS, INC.</u>	<b>Emergency Telephone Number</b> <u>(904)285-0200</u>
<b>Address</b> (Number, Street, City, State, and ZIP Code) <u>PO Box 1726</u>	<b>Telephone Number for Information</b> <u>(904)285-0200</u>
<u>Ponte Vedra, FL 32004</u>	<b>Date Prepared</b> <u>January 01, 2008</u>
	<b>Signature of Preparer (printed)</b>

**Section II - Hazardous Ingredients/Identify Information**

Hazardous Components (Specific Chemical Identity, Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
<u>ITC-213<sup>TM</sup> is made of non-toxic ceramic components.</u>				

**Section III - Physical/Chemical Characteristics**

<b>Boiling Point</b>	<u>3000<sup>D</sup> F</u>	<b>Specific Gravity (H<sub>2</sub>O = 1)</b>	<u>N/A</u>
<b>Vapor Pressure (mm Hg.)</b>	<u>N/A</u>	<b>Melting Point</b>	<u>3500<sup>D</sup> F</u>
<b>Vapor Density (AIR = 1)</b>	<u>N/A</u>	<b>Evaporation Rate</b> (Butyl Acetate = 1)	<u>N/A</u>
<b>Solubility in Water</b>	<u>N/A</u>		

**Appearance and Color**  
Odorless ceramic paste

**Section IV - Fire and Explosion Hazard Data**

<b>Flash Point (Method Used)</b>	<u>3500<sup>D</sup> + F</u>	<b>Flammable Limits</b>	<u>N/A</u>	<b>LEL</b>	<b>UEL</b>
<b>Extinguishing Media</b>	<u>N/A</u>				

**Special Fire Fighting Procedures**  
None. Material is used in high temperature applications as coating for metal surface to prevent rust and or metal fatigue of same.

**Unusual Fire and Explosion Hazards**

**Section V — Reactivity Data**

Stability	Unstable	N/A	Conditions to Avoid	N/A
	Stable			
		N/A		

Incompatibility (Materials to Avoid) N/A

Hazardous Decomposition or Byproducts N/A

Hazardous Polymerization	May Occur		Conditions to Avoid	
	Will Not Occur	X		N/A

**Section VI — Health Hazard Data**

Routes of Entry:      Inhalation?       Skin?       Ingestion?

**Health Hazards (Acute and Chronic)**

Material is non-toxic; however, if inhaled, swallowed or painted on skin, can create health hazards.

Carcinogenicity:      N/A      NTP?      NRC Monograph?      OSHA Registered?

**Signs and Symptoms of Exposure**

Lung, skin, or eye irritation can occur if unprotected during application.

**Medical Conditions**

Generally Aggravated by Exposure      Any pre-existing lung, skin, or eye disease will be aggravated with inadequate protection during application.

**Emergency and First Aid Procedures**

Wash eyes and body immediately upon contact.

**Section VII — Precautions for Safe Handling and Use****Steps to Be Taken in Case Material is Released or Spilled**

Put in proper receptacles and dispose of in accordance with local, state, and federal laws.

**Waste Disposal Method**

This material if disposed will harden by outside temperature into solid form that is non-hazardous to nature.

**Precautions to Be Taken in Handling and Storage**

Keep container lids tightly sealed when not in use.

**Other Precautions**

Use OSHA approved air purifying respirator, safety goggles, work clothes and gloves during application.

**Section VIII — Control Measures**

Respiratory Protection (Specify Type)      Air purifying respirator

Ventilation	Local Exhaust	Best	Special	N/A
	Mechanical (General)	Best	Other	Best

Protective Gloves      Advisable to use during application      Eye Protection      Safety goggles

Other Protective Clothing or Equipment      Standard work uniforms that protect skin

Work/Hygiene Practices      Attention to cleanliness and personal care will prevent problems.

# **DEMPSEY'S FORGE / *anvilfire.com***

<b>BASIC ITC PRODUCT USE GUIDE</b>	
ITC-100HT	IR reflectivity, energy efficiency, increased heat resistance and durability, refractory sealer
ITC-148	Heavy duty refractory repair and surface hardening. Used with ITC-100HT
ITC-200EZ	Ready to use refractory repair compatible with ITC-100HT, 148, 296A
ITC-213	Protection of metals, graphite, silicon carbide crucibles and primer for other ITC products.
ITC-296A	High purity adhesion resistant top coating for ceramics, glass and foundry applications.

For detailed information see the *ITC Problem Solving and Application Chart* in print and on-line at [anvilfire.com/ITC](http://anvilfire.com/ITC). MSDS and other literature also available on-line.

<b>ITC PRODUCT DILUTION and APPLICATION GUIDE</b>					
<b>PRODUCT</b>	<b>THINNER</b>	<b>RATIO</b>	<b>BASE</b>	<b>COVERAGE</b>	<b>METHOD</b>
ITC-100HT	water	1 : 2	* Refractories	50-100 sq/ft Gallon	Spray or Brush
ITC-148	ITC-100	~1 : 8	ITC-100HT	NA	Spatula or Trowel
ITC-200EZ	none	:	Fresh ITC-100HT	NA	Spatula or Trowel
ITC-213	water	1 : 3	Metals, Graphite, SiC	150-250 sq/ft Gallon	Rag, Brush or Spray
ITC-296A	water	1 : 2	All ITC Products	100-200 sq/ft Gallon	Spray or Brush

\* Refractories include castables, fired brick, IFB's, ceramic blanket, fiber and other ITC products.  
Coverage varies according to texture, application method and water absorption rate.  
1 : 2 dilution equals 1/2 pt. water to 1 pt. ITC. 1 : 3 dilution equals 1/3 pt. water to 1 pt. ITC

ITC products are water based and shipped as a heavy paste. Their shelf life is as long as they do not dry out. Dried unused ITC products cannot be reconstituted.

We recommend that partially used containers of undiluted product have a small amount of water added and then seal well. Sealing the entire container in a zip-lock bag will increase shelf life.

Refractory surfaces should be clean and dust free prior to applying ITC products. Lightly spritzing refractory surfaces with water prior to application of ITC products will help bonding. ITC-100HT is best applied to new unfired refractory blanket rather than fired.

ITC-213 is best scrubbed in with a rag or brush but can also be sprayed. Metal surfaces should be thoroughly degreased and cleaned using a dilute Chlorox bleach and water solution. Very smooth surfaces should be scratched up using a hack saw blade.

ITC no longer provides spray guns. The current recommendation for spraying is the use of a commonly available textured ceiling paint system. For small areas a 1 inch (25 mm) brush can be used.

Unique ceramic products manufactured by International Technical Ceramics, Inc. Ponte Vedra, FL, USA

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**ITC Products distributed by *DEMPSEY'S FORGE / anvilfire.com***

4714 Granite Trail ▪ Boonville ▪ NC 27011 ▪ 336-367-3499

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