

## Excelsior ASD-800

### Excelsior Acrylic Wet Set ESD Adhesive

Version 1.0      Revision Date: 8/23/2016      MSDS Number: ASD-800      Date of last issue: -  
Date of first issue: 03/04/2016

#### SECTION 1. IDENTIFICATION

**Product name** : Excelsior ASD-800

**Product Description** : Acrylic Wet Set ESD Adhesive

**Supplier** : RHC

**Address** : 1602 N. Union St.  
Fostoria, OH 44830

**Telephone** : (844) 393 - 4044

**Fax** : (419) 436 - 2482

**Emergency Telephone Number** : CHEMTREC: 1 (800) 424-9300  
CANUTEC: (613) 996 - 6666

#### SECTION 2. HAZARDS IDENTIFICATION

**GHS Classification** : Not classified

**GHS Label Element** : Not a dangerous substance

**Other Hazards** : Exposure may aggravate those with pre-existing eye, skin or respiratory conditions.

#### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Classification** : Mixtures

**Description** : Adhesive

##### Hazardous Components

CAS#	Chemical Name	Percentage
7782-42-5	Graphite*	15 - 40
13463-67-7	Titanium dioxide*	10 - 30

*\*This product contains a material that may be hazardous when present as an airborne dust. Since this product is in a liquid form, the material is not able to become airborne and cannot be inhaled. Thus, the hazards usually associated with this material are not applicable to this product.*

#### SECTION 4. FIRST AID MEASURES

##### First Aid Measures

**General** : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

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- Inhalation** : If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.
- Skin Contact** : In case of skin contact, rinse immediately with plenty of water. Remove contaminated clothing. Rinse affected area with water for at least 5 minutes. Obtain medical attention if irritation develops or persists.
- Eye Contact** : In case of eye contact, rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if redness, pain, or irritation occurs.
- Ingestion** : If swallowed, Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

**Most Important Symptoms and effects, Both Acute and Delayed**

- General** : None expected under normal conditions of use.
- Inhalation** : Prolonged exposure may cause respiratory irritation.
- Skin Contact** : Prolonged exposure may cause skin irritation.
- Eye Contact** : Prolonged exposure may cause mild eye irritation.
- Ingestion** : Ingestion is likely to be harmful or have adverse effects.
- Chronic Symptoms** : None expected under normal conditions of use.

**Indications of Any Immediate Medical Attention and Special Treatment Needed**

If you feel unwell, seek medical attention (show product label where possible).

**SECTION 5. FIREFIGHTING MEASURES****Extinguishing Media**

- Suitable Extinguishing Media** : Use extinguishing media appropriate for area.
- Unsuitable Extinguishing Media** : Do not use heavy water stream, as this may spread fire.

**Specific Hazards Arising From Substance or Mixture**

- Fire Hazard** : Product is not flammable.
- Explosion Hazard** : Product is not explosive.

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**Reactivity** : Hazardous reactions are unlikely to occur under normal circumstances.

**Advice for Firefighting**

**Precautionary Measures While Firefighting** : Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

**Specific Firefighting Instructions** : Use water spray or fog for cooling exposed containers.

**Specific Protection Equipment for Firefighters** : Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products** : Under fire conditions this material may produce hazardous carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of titanium.

**Other Information** : Refer to Section 9 for flammability properties.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**


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**Personal Precautions, Protective Equipment & Emergency Procedures** : Avoid all contact with skin, eyes or clothing. Do not breathe vapor, mist or spray.

**Instructions for Non-Emergency Personnel** : Use appropriate personal protection equipment (PPE). Evacuate unnecessary personnel.

**Instructions for Emergency Personnel** : Equip cleanup crew with proper protection. Stop leak if safe to do so. Ventilate area.

**Environmental Precautions** : Do not allow product to reach sewage systems or water course. Inform respective authorities in case of seepage into sewage or water course.

**Methods & Materials for Containment and Cleaning Up** : Contain any spills with dikes or inert absorbent material (e.g. sand, diatomite, acid binder, universal binder, sawdust) to prevent migration into sewage systems and water course. Clean up spills immediately and dispose contaminated material according to section 13. Clean contaminated floors and objects thoroughly while observing environmental regulations. Inform respective authorities in case of seepage into sewage or water course.

**Reference to Other Sections** : See Section 8 for information on personal protection. See section 13 for disposal information.

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**SECTION 7. HANDLING AND STORAGE**
**Precautions for Safe Handling**

**Hygiene Measures** : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

**Conditions for Safe Storage, Including Any Incompatibilities**

**Technical Measures** : Comply with applicable regulations.

**Storage Conditions** : Store in a dry, cool and well-ventilated area. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

**Incompatible Materials** : Strong acids, strong bases, strong oxidizers.

**Specific End Use(s)** : No use specified.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**Components with Workplace Control Parameters**

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

<b>Graphite (7782-42-5)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (all forms except graphite fibers-respirable fraction)
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (synthetic-total dust) 5 mg/m <sup>3</sup> (synthetic-respirable fraction)
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	2.5 mg/m <sup>3</sup> (natural-respirable dust)
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	1250 mg/m <sup>3</sup>
<b>Alberta</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (all forms except Graphite fibres-respirable)
<b>British Columbia</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (all forms except Graphite fibres-respirable)
<b>Manitoba</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (all forms except Graphite fibers-respirable fraction)
<b>New Brunswick</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (all forms except graphite fibres)
<b>Newfoundland &amp; Labrador</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (all forms except Graphite fibers-respirable fraction)
<b>Nova Scotia</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (all forms except Graphite fibers-respirable fraction)

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<b>Nunavut</b>	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (synthetic-respirable mass) 10 mg/m <sup>3</sup> (synthetic, total mass)
<b>Northwest Territories</b>	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (synthetic-respirable mass) 10 mg/m <sup>3</sup> (synthetic, total mass)
<b>Ontario</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (except Graphite fibres-respirable)
<b>Prince Edward Island</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (all forms except Graphite fibers-respirable fraction)
<b>Québec</b>	VEMP (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (containing no Asbestos and <1% Crystalline silica, except Graphite fibres-respirable dust)
<b>Saskatchewan</b>	OEL STEL (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup> (natural, except Graphite fibres-respirable fraction)
<b>Saskatchewan</b>	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (natural, except Graphite fibres-respirable fraction)
<b>Yukon</b>	OEL TWA (mg/m <sup>3</sup> )	20 mppcf 30 mppcf (synthetic) 10 mg/m <sup>3</sup> (synthetic)

<b>Titanium dioxide (13463-67-7)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>USA ACGIH</b>	ACGIH chemical category	Not Classifiable as a Human Carcinogen
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust)
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	5000 mg/m <sup>3</sup>
<b>Alberta</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>British Columbia</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust) 3 mg/m <sup>3</sup> (respirable fraction)
<b>Manitoba</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>New Brunswick</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>Newfoundland &amp; Labrador</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>Nova Scotia</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>Nunavut</b>	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (respirable mass) 10 mg/m <sup>3</sup> (total mass)
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>USA ACGIH</b>	ACGIH chemical category	Not Classifiable as a Human Carcinogen
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust)
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	5000 mg/m <sup>3</sup>
<b>Alberta</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>British Columbia</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust) 3 mg/m <sup>3</sup> (respirable fraction)
<b>Manitoba</b>	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>

**Exposure Controls**

**Engineering Controls** : Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

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**Environmental Exposure Controls** : Do not allow product to be released into the environment.

**Consumer Exposure Controls** : Do not eat, drink or smoke during use.

**Personal Protective Equipment**

**General** : Wear protective goggles, gloves and protective clothing.

**Material for Protective Clothing** : Chemically resistant materials and fabrics.

**Respiratory Protection** : Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

**Hand Protection** : Wear chemically resistant protective gloves.

**Eye Protection** : Chemical goggles or safety glasses.

**Skin & Body Protection** : Wear suitable protective clothing.

**Protective Measures** : The usual precautionary measures for handling chemicals should be followed.

**Hygiene Measures** : The usual precautionary measures for handling chemicals should be followed.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	: Paste
<b>Physical State</b>	: Liquid
<b>Color</b>	: Grey
<b>Odor</b>	: Low Odor
<b>pH</b>	: 6.5 – 8.5
<b>Melting Point / Range</b>	: No data available
<b>Freezing Point</b>	: 32° F (0° C)
<b>Boiling Point / Range</b>	: ~212° F (~100° C)
<b>Flash Point</b>	: >200 ° F (>93.33° C)
<b>Flammability</b>	: No data available

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<b>Auto-Ignition Temperature</b>	: No data available
<b>Decomposition Temperature</b>	: No data available
<b>Upper &amp; Lower Flammability Limit</b>	: None
<b>Specific Gravity</b>	: 1.12
<b>Water Solubility</b>	: No data available
<b>Solubility</b>	: Water Soluble
<b>Partition Coefficient (Noctanol/Water)</b>	: No data available
<b>Viscosity</b>	: 20,000 – 27,000 CPS
<b>Explosion Data – Mechanical Impact</b>	: Not expected to present an explosion hazard due to mechanical impact
<b>Explosion Data – Static Discharge</b>	: Not expected to present an explosion hazard due to static discharge
<b>VOC Content</b>	: < 1g/l

## SECTION 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	: Stable under normal conditions.
<b>Chemical Stability</b>	: Stable under recommended handling and storage conditions (see section 7)
<b>Possibility of Hazardous Reactions</b>	: None known.
<b>Conditions to Avoid</b>	: Direct sunlight. Extremely high or low temperatures. Incompatible materials.
<b>Incompatible Materials</b>	: Strong acids, strong bases, strong oxidizers.
<b>Hazardous Decomposition Products</b>	: Carbon oxides (CO, CO <sub>2</sub> ). Titanium oxides.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Toxicological Effects (Product)

<b>Acute toxicity</b>	: Not classified / available
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<b>Skin Corrosion / Irritation</b>	: Not classified, pH 7.5-10
<b>Serious Eye Damage / Irritation</b>	: Not classified, pH 7.5-10
<b>Respiratory or Skin Sensitization:</b>	: Not classified
<b>Germ Cell Mutagenicity</b>	: Not classified
<b>Teratogenicity</b>	: Not classified
<b>Carcinogenicity</b>	: Not classified
<b>Reproductive Toxicity</b>	: Not classified
<b>Aspiration Hazard</b>	: Not classified
<b>Specific Target Organ Toxicity (Single or Repeated Exposure)</b>	: Not classified
<b>Symptoms / Injuries After Inhalation</b>	: May cause respiratory irritation
<b>Symptoms / Injuries After Skin Contact</b>	: May cause mild skin irritation
<b>Symptoms / Injuries After Skin Contact</b>	: May cause minor eye irritation.
<b>Symptoms / Injuries After Skin Contact</b>	: Ingestion is likely to be harmful or have adverse effects.
<b>Chronic Symptoms</b>	: None expected under normal conditions

**Carcinogenic Categories**

<b>IARC</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.
<b>OSHA</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
<b>NTP</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.



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**Toxicological Effects (Ingredients)**

Acute Toxicity :

<b>Titanium dioxide (13463-67-7)</b>	
LD50 Oral Rat	> 10000 mg/kg
<b>Urea (57-13-6)</b>	
LD50 Oral Rat	8471 mg/kg
ATE US (oral)	8,471.00 mg/kg body weight
<b>Titanium dioxide (13463-67-7)</b>	
IARC Group	2B
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity (Product)**

**Toxicity** : No additional information available

**Persistence & Degradability** : Not available

**Bioaccumulative Potential** : Not available

**Mobility in Soil** : Not available

**Other Adverse Effects** : None known

**Other Information** : Avoid release into the environment

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

**Waste from Residues** : Dispose of in accordance with federal, state/province and local regulations.

**Ecology – Waste Materials** : Avoid release to the environment.

**SECTION 14. TRANSPORT INFORMATION****International Regulation**

**DOT** : Not regulated as a dangerous good

**IMDG-Code** : Not regulated as a dangerous good

**IATA-DGR** : Not regulated as a dangerous good

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**UNRTDG** : Not regulated as a dangerous good

## SECTION 15. REGULATORY INFORMATION

### US Federal Regulations

<b>Graphite (7782-42-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Phenol, 4-nonyl-, branched (84852-15-3)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>SARA Section 311/312 Hazard Classes</b>	Delayed (chronic) health hazard

### US State Regulations

<b>Titanium dioxide (13463-67-7)</b>	
<b>U.S. - California - Proposition 65 - Carcinogens List</b>	WARNING: This product contains chemicals known to the State of California to cause cancer.
<b>Graphite (7782-42-5)</b>	
U.S. - Massachusetts - Right To Know List	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Titanium dioxide (13463-67-7)</b>	
U.S. - Massachusetts - Right To Know List	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) List	

### Canadian Regulation

<b>WHMIS Classification</b>	Uncontrolled product according to WHMIS classification criteria.
<b>Graphite (7782-42-5)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
<b>WHMIS Classification</b>	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
<b>Titanium dioxide (13463-67-7)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
<b>WHMIS Classification</b>	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this SDS contains all of the information required by CPR.

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#### SECTION 16. OTHER INFORMATION

**Revision Date** : 8.23.2016

**Other Information** : This document has been prepared in accordance with the SDS requirements of OSHA Hazard Communication Standard 29 CFR 1910.1200.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.