General Safety Training
Dining Services
University of Dayton
Potential Kitchen Hazards

- Thermal Hazards (ovens, fryers, steamers, hot beverages or sauces, etc.)
- Machine Hazards (powered with moving parts or blades)
- Chemical Hazards (housekeeping chemicals, dishwashing, sanitation)
- Slips, Trips, Falls
- Ergonomic Hazards (sprains, strains, soft tissue injuries)
- Cuts (knives, slicers)
Hazard Controls

- Administrative- Training and Education!

- Personal Protective Equipment- i.e. slip resistant shoes, thermal gloves, chemical goggles and gloves, aprons, etc.

- Engineering- equipment design to reduce or eliminate hazard
Hazard Communication

• In order to ensure chemical safety in the workplace, information about the identities and hazards of the chemicals must be available and understandable to workers.

• OSHA's Hazard Communication Standard (HCS) requires the development and dissemination of such information.
Hazard Communication

• The Hazard Communication Standard (HCS) is now aligned with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). Major changes include:
  
  • **Hazard classification**: Provides specific criteria for classification of health and physical hazards, as well as classification of mixtures.
  
  • **Labels**: Chemical manufacturers and importers will be required to provide a label that includes a harmonized signal word, pictogram, and hazard statement for each hazard class and category. Precautionary statements must also be provided.
  
  • **Safety Data Sheets**: Will now have a specified 16-section format.
  
  • **Information and training**: Employers are required to train workers on the new labels elements and safety data sheets format to facilitate recognition and understanding.
Hazard Classification

HCS PICTOGRAMS & HAZARDS

<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>Flame</th>
<th>Exclamation Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Carcinogen</td>
<td>• Flammables</td>
<td>• Irritant (skin and eye)</td>
</tr>
<tr>
<td>• Mutagenicity</td>
<td>• Pyrophorics</td>
<td>• Skin Sensitizer</td>
</tr>
<tr>
<td>• Reproductive Toxicity</td>
<td>• Self-Heating</td>
<td>• Acute Toxicity (harmful)</td>
</tr>
<tr>
<td>• Respiratory Sensitizer</td>
<td>• Emits Flammable Gas</td>
<td>• Narcotic Effects</td>
</tr>
<tr>
<td>• Target Organ Toxicity</td>
<td>• Self-Reactives</td>
<td>• Respiratory Tract Irritant</td>
</tr>
<tr>
<td>• Aspiration Toxicity</td>
<td>• Organic Peroxides</td>
<td>• Hazardous to Ozone Layer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Non Mandatory)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gas Cylinder</th>
<th>Corrosion</th>
<th>Exploding Bomb</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Gases under pressure</td>
<td>• Skin Corrosion/ burns</td>
<td>• Explosives</td>
</tr>
<tr>
<td></td>
<td>• Eye Damage</td>
<td>• Self-Reactives</td>
</tr>
<tr>
<td></td>
<td>• Corrosive to Metals</td>
<td>• Organic Peroxides</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flame over Circle</th>
<th>Environment (Non-mandatory)</th>
<th>Skull &amp; Crossbones</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Oxidizers</td>
<td>• Aquatic Toxicity</td>
<td>• Acute Toxicity (fatal or toxic)</td>
</tr>
</tbody>
</table>
Labels

- The GHS inspired standards will require chemical manufacturers and importers to label chemical containers with a
  - 1) harmonized signal word,
  - 2) GHS pictogram(s),
  - 3) a hazard statement for each hazard class and category,
  - 4) a precautionary statement, and
  - 5) supplier identification.
Container Label
GHS SAFETY DATA SHEET

WELD-ON® 763™ Low VOC Styrene Rubber Cement

Date Revised: FEB 2010
Supersedes: OCT 2009

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: WELD-ON® 763™ Low VOC Styrene Rubber Cement
PRODUCT USE: Low VOC Styrene Rubber Cement
SUPPLIER: IPS Corporation
MANUFACTURER: IPS Corporation
17109 South Main Street, Carson, CA 90248-3127
P.O. Box 379, Gardena, CA 90247-0379
Tel. 1-310-898-3300

EMERGENCY: Transportation: Tel. 800.424.9300, 703.527.3887 CHEMTREC (International)
Medical: Tel. 800.451.8346, 760.602.8703 3E Company (International)

SECTION 2 - HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

<table>
<thead>
<tr>
<th>Class</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity: Health</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin Irritation: Category 3</td>
<td></td>
</tr>
<tr>
<td>Skin Sensitization: NO</td>
<td></td>
</tr>
<tr>
<td>Eye: Category 2B</td>
<td></td>
</tr>
<tr>
<td>Acute Toxicity: Environmental</td>
<td></td>
</tr>
<tr>
<td>Chronic Toxicity: None Known</td>
<td></td>
</tr>
<tr>
<td>Flammable Liquid</td>
<td></td>
</tr>
<tr>
<td>Physical: Category 2</td>
<td></td>
</tr>
</tbody>
</table>

GHS LABEL:

- Signal Word: Danger

Hazard Statements:
- H225: Highly flammable liquid and vapor
- H319: Causes serious eye irritation
- H332: Harmful if inhaled
- H335: May cause respiratory irritation
- H336: May cause drowsiness or dizziness
- EUH019: May form explosive peroxides

Precautionary Statements:
- P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
- P261: Avoid breathing dust/fume/gas/mist/vapors/spray
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P403+P233: Store in a well ventilated place. Keep container tightly closed
- P501: Dispose of contents/container in accordance with local regulation

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS#</th>
<th>EINECS #</th>
<th>REACH Pre-registration Number</th>
<th>CONCENTRATION % by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>78-93-3</td>
<td>201-159-0</td>
<td>05-2116297728-24-0000</td>
<td>54 - 71</td>
</tr>
</tbody>
</table>

All of the constituents of this adhesive product are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing.

* Indicates this chemical is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR372).
SECTION 4 - FIRST AID MEASURES
Contact with eyes: Flush eyes immediately with plenty of water for 15 minutes and seek medical advice immediately.
Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water. If irritation develops, seek medical advice.
Inhalation: Remove to fresh air. If breathing is stopped, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.
Ingestion: Rinse mouth with water. Give 1 or 2 glasses of water or milk to dilute. Do not induce vomiting. Seek medical advice immediately.

SECTION 5 - FIREFIGHTING MEASURES
Suitable Extinguishing Media: Dry chemical powder, carbon dioxide gas, foam, Halon, water fog.
Suitable Extinguishing Media: Water spray or stream.
Unsuitable Extinguishing Media: Health 2 2 1-Slight
Exposure Hazards: Inhalation and dermal contact Flammability 3 3 2-Moderate
Combustion Products: Oxides of carbon, hydrogen chloride and smoke Reactivity 0 0 3-Serious
Protection for Firefighters: Self-contained breathing apparatus or full-face positive pressure airline masks. 4-Severe

SECTION 6 - ACCIDENTAL RELEASE MEASURES
Personal precautions: Keep away from heat, sparks and open flame. Provide sufficient ventilation, use explosion-proof exhaust ventilation equipment or wear suitable respiratory protective equipment. Prevent contact with skin or eyes (see section 8).
Environmental Precautions: Prevent product or liquids contaminated with product from entering sewers, drains, soil or open water course.
Methods for Cleaning up: Clean up with sand or other inert absorbent material. Transfer to a closable steel vessel.
Materials not to be used for clean up: Aluminum or plastic containers

SECTION 7 - HANDLING AND STORAGE
Handling: Avoid breathing of vapor, avoid contact with eyes, skin and clothing.
    Keep away from ignition sources, use only electrically grounded handling equipment and ensure adequate ventilation/fume exhaust hoods.
    Do not eat, drink or smoke while handling.
Storage: Store in ventilated room or shade below 44°C (110°F) and away from direct sunlight.
    Keep away from ignition sources and incompatible materials: caustics, ammonia, inorganic acids, chlorinated compounds, strong oxidizers and isocyanates. Follow all precautionary information on container label, product bulletins and solvent cementing literature.

SECTION 8 - PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION
EXPOSURE LIMITS: Component ACGIH TLV ACGIH STEL OSHA PEL OSHA STEL
Methyl Ethyl Ketone (MEK) 200 ppm 300 ppm 200 ppm

Engineering Controls: Use local exhaust as needed.
Monitoring: Maintain breathing zone airborne concentrations below exposure limits.
Personal Protective Equipment (PPE):
Eye Protection: Avoid contact with eyes, wear splash-proof chemical goggles, face shield, safety glasses (spectacles) with brow guards and side shields, etc. as may be appropriate for the exposure.
Skin Protection: Prevent contact with the skin as much as possible. Butyl rubber gloves should be used for frequent immersion.
    Use of solvent-resistant gloves or solvent-resistant barrier cream should provide adequate protection when normal adhesive application practices and procedures are used for making structural bonds.
Respiratory Protection: Prevent inhalation of the solvents. Use in a well-ventilated room. Open doors and/or windows to ensure airflow and air changes. Use local exhaust ventilation to remove airborne contaminants from employee breathing zone and to keep contaminants below levels listed above. With normal use, the Exposure Limit Value will not usually be reached. When limits approached, use respiratory protection equipment.
SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Milky, medium syrupy liquid
Odor: Ketone
pH: Not Applicable
Melting/Freezing Point: 86°C (187°F) Based on first melting component: MEK
Boiling Point: 80°C (176°F) Based on first boiling component: MEK
Flash Point: -9°C (16°F) TCC based on MEK
Specific Gravity: 0.880 @23°C (73°F)
Solubility: Solvent portion soluble in water. Resin portion separates out.
Partition Coefficient n-octanol/water: Not Available
Auto-Ignition Temperature: 515°C (959°F) based on MEK
Decomposition Temperature: Not Applicable
VOC Content: When applied as directed, per SCAQMD Rule 116B, Test Method 316A, VOC content is \( \leq 490 \text{ g/l} \).

Odor Threshold: 5.4 ppm (MEK)
Boiling Range: 80°C (176°F)
Evaporation Rate: > 1.0 (BUAC = 1)
Flammability: Category 2
Flammability Limits: LEL: 1.4% based on MEK
UEL: 11.4% based on MEK
Vapor Pressure: 78 mm Hg @ 20°C (68°F) MEK
Vapor Density: >2 (Air = 1)
Other Data: Viscosity: Medium bodied

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable
Hazardous decomposition products: None in normal use. When forced to burn, this product gives off oxides of carbon, hydrogen chloride and smoke.
Conditions to avoid: Keep away from heat, sparks, open flame and other ignition sources.
Incompatible Materials: Oxidizers, strong acids and bases, amines, ammonia

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Inhalation, Eye and Skin Contact
Acute symptoms and effects:
Inhalation: Severe overexposure may result in nausea, dizziness, headache. Can cause drowsiness, irritation of eyes and nasal passages.
Eye Contact: Vapors slightly uncomfortable. Overexposure may result in severe eye injury with corneal or conjunctivai inflammation on contact with the liquid.
Skin Contact: Liquid contact may remove natural skin oils resulting in skin irritation. Dermatitis may occur with prolonged contact.
Ingestion: May cause nausea, vomiting, diarrhea and mental sluggishness.
Chronic (long-term) effects: None known to humans
Toxicity: LD\(50\) Methyl Ethyl Ketone (MEK)
Oral: 2737 mg/kg (rat), Dermal: 6480 mg/kg (rabbit) Inhalation 8 hrs. 23,500 mg/m\(^3\) (rat)

<table>
<thead>
<tr>
<th>Reproductive Effects</th>
<th>Teratogenicity</th>
<th>Mutagenicity</th>
<th>Embryotoxicity</th>
<th>Sensitization to Product</th>
<th>Synergistic Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
</tbody>
</table>

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: None Known
Mobility: In normal use, emission of volatile organic compounds (VOC's) to the air takes place, typically at a rate of \( \leq 490 \text{ g/l} \).
Degradability: Biodegradable
Bioaccumulation: Minimal to none.

SECTION 13 - WASTE DISPOSAL CONSIDERATIONS

Follow local and national regulations. Consult disposal expert.
SECTION 14 - TRANSPORT INFORMATION

Proper Shipping Name: Adhesives
Hazard Class: 3
Secondary Risk: None
Identification Number: UN 1133
Packing Group: PG II
Label Required: Class 3 Flammable Liquid
Marine Pollutant: NO

EXCEPTION for Ground Shipping
DOT Limited Quantity: Up to 5L per inner packaging, 30 kg gross weight per package.
Consumer Commodity: Depending on packaging, these quantities may qualify under DOT as "ORM-D".

TDG INFORMATION
TDG CLASS: FLAMMABLE LIQUID 3
SHIPPING NAME: ADHESIVES
UN NUMBER/PACKING GROUP: UN 1133, PG II

SECTION 15 - REGULATORY INFORMATION

Precautionary Label Information: Highly Flammable, Irritant
Symbols: F, Xi
Risk Phrases: R11: Highly flammable.
R20: Harmful by inhalation.
R36/37: Irritating to eyes and respiratory system.
S25: Avoid contact with eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S33: Take precautionary measures against static discharges.
S46: If swallowed, seek medical advice immediately and show this container or label.

Ingredient Listings: USA TSCA, Europe EINECS, Canada DSL, Australia AICS, Korea ECL/TCCL, Japan Mti (ENCS)
R66: Repeated exposure may cause skin dryness or cracking
R67: Vapors may cause drowsiness and dizziness

SECTION 16 - OTHER INFORMATION

Specification Information:
Department issuing data sheet: IPS, Safety Health & Environmental Affairs
E-mail address: <EHSinfo@ipscorp.com>
All ingredients are compliant with the requirements of the European Directive on RoHS (Restriction of Hazardous Substances).

Training necessary: Yes, training in practices and procedures contained in product literature.
Reissue date / reason for reissue: 2/23/2010 / Updated GHS Standard Format

Intended Use of Product: Adhesive for bonding/cementing Styrene plastic piping and fittings

This product is intended for use by skilled individuals at their own risk. The information contained herein is based on data considered accurate based on current state of knowledge and experience. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.
Personal Protective Equipment

- When working with chemicals or cleaning products, ensure you understand the personal protective equipment requirements:
  - Goggles
  - Gloves
  - Possibly and apron or respirator
Kitchen Safety Video

• [https://www.youtube.com/watch?v=GtwHnYjw2p0](https://www.youtube.com/watch?v=GtwHnYjw2p0)
Kitchen Equipment

• Before operating any machinery, you should be properly trained.

• Use any machine guarding provided.

• Always ask for assistance if you are not sure how to do something.

• Follow the manufacturer's instructions for machine use and cleaning.
Kitchen Equipment

Mincers, choppers, dicers, slicers, food processors, mixers:

• Make sure you are using any machine guarding that is provided to prevent access to cutter blades and moving parts. Do not bypass safety guards.

• Do not open up or put your hands into an operating machine to stir contents or guide food. Use push sticks to feed or remove food from the slicer.

• Turn off and unplug the machine before disassembling and cleaning.

• Do not wear loose clothing or jewelry that could become caught in the equipment.
Kitchen Equipment

Steamers/Pressure Cookers:

- Do not open the door while the steamer is on, shut off the steam, and then wait a couple of minutes before releasing the pressure and opening.

- Open the steamer door by standing to the side, keeping the door between you and the open steamer.

- Use oven mitts to remove hot trays from the steamer.

- Place hot, dripping steamer trays on a cart to transport. If trays are carried by hand, they will drip on floors and create a slip hazard.

- If a steamer is stacked, remove the tray from the top steamer first, then the lower one, to prevent burns from rising steam.
Ergonomics- Prolonged Standing

- Cause muscle fatigue and pooling of blood in the lower extremities
- Try to change your position occasionally
- Use anti-fatigue mats and wear well cushioned shoes
Ergonomics- Reaching & Lifting

- Cause back and shoulder injuries resulting in muscle strain.

- Stack heavier items on lower shelves.

- Store lighter goods on the top shelves.

- Stack items used most frequently at a convenient waist level.

- Get help lifting heavy items.

- Use a stool or ladder to access items on shelves. Do not stand on chairs or boxes that might tip over.
Ergonomics - Proper Lifting

- Cause back and shoulder injuries resulting in muscle strain.
- Lift with your knees, not your back.
- Always make sure the load is balanced.
- Get help!
Slips, Trips, Falls

• Wipe up spills immediately!

• Clean floors daily

• Wear appropriate waterproof non-slip footwear.
Clean up of Bodily Fluids

- Body fluids such as blood, vomit, etc. should not be cleaned up by Dining Services staff unless properly trained.

- Contact your supervisor

- Call Public Safety, Alpha & Omega will perform clean up.
Reporting Injuries

- Report all injuries and near-misses to your supervisor.

- Complete the required workman’s comp forms for injuries, no matter how minor they might seem.
Kitchen Fire Safety
Fire Safety - common causes of fires

- Working around open flames
- Un-emptied grease traps (possible grease fires)
- Dirty ducts (possible flue fires)
- Improper storage of flammable items
- Faulty or frayed electrical cords
- Poor housekeeping
Fire Safety

• Know the locations of fire extinguishers and controls for kitchen hood suppression systems
• Know fire evacuation procedures.
• Never carry or move oil containers when oil is hot or on fire.
• Never throw water on a grease fire; this will make the fire worse.
• Empty grease traps frequently; do not allow them to overfill.
• Keep grilling surfaces clean and free from grease accumulations that might ignite and cause a fire.
• Do not use frayed cords or defective equipment.
• Do not store flammable items near heat-producing equipment or open flames.
• Ensure exits are free of clutter and obstructions at all times.
Fire Extinguisher

- **Class K**
  - A fire extinguisher labeled with letter "K" is for use on Class K fires. Class K fires are fires that involve vegetable oils, animal oils, or fats in cooking appliances. This is for commercial kitchens, including those found in restaurants, cafeterias, and caterers.
  - The kitchens are also equipped with ANSUL hood suppression systems.
Evacuation

• Everyone must evacuate when fire alarm is activated

• Be familiar with the facilities evacuation plan (to be posted in the kitchen and dining areas)

• Do not re-enter building until Public Safety provides the all clear
EVACUATION PLAN

IN THE EVENT OF A FIRE:
Follow arrows to the nearest exit, DO NOT USE ELEVATORS

IN THE EVENT OF A TORNADO:
Go to the lowest level or to the interior of the building and away from windows

EMERGENCY INFORMATION:
For evacuation assistance, call UD Public Safety Dispatch at 229-2121 (x92121 or 911 from a campus phone) and notify them of your location

KEY
- You Are Here
- Fire Extinguisher
- Primary Escape Route
- Secondary Escape Route
- ANSUL Pull Station
- Fire Alarm Pull Station

FOOD COURT KITCHEN KENNEDY UNION
Severe Weather

• Tornado and High Winds- UD’s Emergency Notification System will be activated (no sirens). Go to the lowest level or indoor space with no windows until the warning has passed.