SAFETY DATA SHEET

1. Product and Company Information

Material Name: PA-311 R Adhesive
Version #: 01
Revision Date: 02-15-2016
CAS #: Mixture
Supplier: Siplast
Address: 1000 Rochelle Blvd.
Irving, TX 75062
Contact Name: Todd Franks
E-Mail: usds@icopal.com
Hours of Operation: 8:00 AM – 5:00 PM US CST
General Assistance: 800-922-8800
CHEMTREC: 800.424.9300

2. Hazard(s) Identification

Physical Hazards: Flammable liquids, Category 3
Health Hazards: Not classified
Environmental Hazards: Not classified
OSHA defined hazards: Not Classified

Label elements

Signal Word: Warning
Hazard statement: Flammable liquid and vapor

Prevention: Use explosion-proof electrical/ventilating/lighting equipment. Ground/bond container and receiving equipment. Keep away from heat/sparks/open flames/hot surfaces. No Smoking. Wear protective gloves/eye protection/face protection. Take precautionary measures against static discharge. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash hands thoroughly after handling.

Response: In case of fire: Use CO2 for extinction. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and possible. Continue rinsing. IF ON SKIN: Remove immediately all contaminated clothing. Rinse skin with water/shower.

Storage: Store in well ventilated place. Keep cool. Store locked up.
Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise Classified (HNOC): None known
Supplemental information: None

3. Composition / Information on Ingredients

Mixtures

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>8052-42-4</td>
<td>40 – 70</td>
</tr>
<tr>
<td>Stoddard Solvent</td>
<td>8052-41-3</td>
<td>15 – 30</td>
</tr>
<tr>
<td>Solvent Naphtha, Light Aromatic</td>
<td>64742-95-6</td>
<td>5 – 25</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>471-34-1</td>
<td>15 – 30</td>
</tr>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>
4. First Aid Measures

**Eye Contact**
Immediately flush eyes with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.

**Skin Contact**
Rinse skin with water/shower. Get medical attention if irritation develops or persists. For minor skin contact, avoid spreading material on unaffected skin.

**Inhalation**
Move to fresh air. Supply oxygen or artificial respiration if needed. No mouth-to-mouth method if substance was inhaled. Induce artificial respiration with the aid of a Pocket mask equipped with a one-way valve or other proper respiratory medical device. Call poison control center immediately if ingestion of a large amount occurs.

**Notes to Physician**
In case of shortness of breath, give oxygen. Keep victim warm and under evaluation. Symptoms may be delayed.

**General advice**
If exposed or concerned: seek medical advice/attention. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Ensure that medical personnel are aware of the materials involved and take precautions to protect themselves.

5. Fire Fighting Measures

**Suitable extinguishing media**
Foam. Dry powder. Carbon dioxide (CO2). Extinguish with water fog.

**Unsuitable extinguishing media**
Do not use water jet as an extinguishing media, as this will spread the fire.

**Specific hazards arising from the chemical**
Firefighters must use standard protective equipment including flame retardant coat, helmet w/protective face shield, gloves, rubber boots, and SCBA in enclosed spaces

**Protective equipment and precautions for firefighters**
In case of fire and/or explosions do not breathe fumes. Fight fire from maximum distance or use unmanned hose holders. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Move containers from fire area if you can do so without risk. Do not get water inside container. For massive fire in cargo area, use unmanned hose holder if possible. If not, withdraw and let fire burn out.

**Firefighting equipment/Instructions**
In the event of fire, cool tanks with water spray. SCBA and full protective clothing must be worn in case of fire.

6. Accidental Release Measures

**Personal precautions**
Remove sources of ignition. Keep away unnecessary personnel. Keep people away from and upwind of spill. Ventilate closed spaces before entry. Do not touch emergency damaged containers or spilled material unless wearing appropriate protective clothing.

**Protective equipment and procedures**
Eliminate all ignition sources. Prevent entry into waterways, sewers, basements or confined areas.

**Methods for containment**
Dike far ahead of spill for later disposal. Cover with DRY earth, sand or non-combustible material followed w/ plastic sheet to minimize contact with rain. Never return spills to original containers for re-use.

**Environmental precautions**
Prevent further spillage or leakage if safe to do so. Do not contaminate water.

7. Handling and Storage

**Precautions for safe handling**
DO NOT handle, store or open near open flame, sources of heat or ignition. Protect material from direct sunlight. All equipment used when handling the product must be grounded. Wear personal protective equipment. Avoid contact with skin. Do not get material in contact with eyes. Use only in well-ventilated areas. Avoid prolonged exposure. Wash thoroughly after handling.

**Conditions for safe storage,**
The pressure in sealed containers can increase when exposed to heat. Keep away from heat, sparks and open flame. Keep away from sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Protect electrostatic charge build-up by using common bonding and grounding techniques. Store in a well-ventilated area. Keep container tightly closed. Handle and store with care.
8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt (8052-42-4)</td>
<td>TWA</td>
<td>0.5 mg/m³</td>
<td>Inhalable fraction</td>
</tr>
<tr>
<td>Stoddard Solvent (8052-41-3)</td>
<td>TWA</td>
<td>100 ppm</td>
<td></td>
</tr>
<tr>
<td>Solvent Naphtha (64742-95-6)</td>
<td>TWA</td>
<td>19 ppm</td>
<td></td>
</tr>
<tr>
<td>Quartz (14808-60-7)</td>
<td>TWA</td>
<td>0.025 mg/m³</td>
<td>Respirable fraction</td>
</tr>
</tbody>
</table>

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate (471-34-1)</td>
<td>PEL</td>
<td>5 mg/m³</td>
<td>Respirable fraction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m³</td>
<td>Total dust</td>
</tr>
<tr>
<td>Stoddard Solvent (8052-41-3)</td>
<td>PEL</td>
<td>2900 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>500 ppm</td>
<td></td>
</tr>
<tr>
<td>Solvent Naphtha (64742-95-6)</td>
<td>PEL</td>
<td>100 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

US. OSHA Table Z-3 (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (14808-60-7)</td>
<td>TWA</td>
<td>0.3 mg/m³</td>
<td>Total dust</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.1 mg/m³</td>
<td>Respirable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.4 mppcf</td>
<td>Respirable</td>
</tr>
</tbody>
</table>

Engineering Controls

Good general ventilation (typically 10 air changes/hr.) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

Eye / face protection
Do not get in eyes. Protective goggles are recommended.

Skin protection
Wear appropriate chemical resistant clothing and gloves.

Respiratory protection
Wear certified respirator when concentrations are above recommended levels

General considerations
Do not smoke when using. Do not get in eyes. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good hygiene and safety practice.

9. Physical & Chemical Properties

Appearance
Black, viscous liquid

Physical state
Liquid

Odor
Slight, hydrocarbon

Odor threshold
Not available

pH
Not available

Vapor pressure
Not available

Vapor density
> 1 estimated

Boiling point
212°F (100°C)

Melting/Freezing point
Not available

Solubility (water)
Insoluble

Specific Gravity
1.07 – 1.2

Flash Point
105°F, minimum (40.6°C) COC Method

Flammability limits in air,
Upper, % by volume
Not available

Flammability limits in air,
Lower, % by volume
Not available

Auto-ignition temperature
Not available

Percent volatile
20% – 30%

Other data
Density
9.0 – 10.0 lbs/gal

Flammability class
Flammable II
10. Chemical Stability & Reactivity Information

Reactivity Not available
Chemical stability Stable under normal temperature conditions
Conditions to avoid Heat, flames and sparks
Incompatible materials Strong oxidizing agents
Hazardous decomposition products Irritants. Toxic gas
Possibility of hazardous reactions Hazardous polymerization will not occur

11. Toxicological Information

Information on likely routes of exposure
Ingestion May cause discomfort if swallowed. However, ingestion is not a likely route of occupational exposure.
Inhalation May cause irritation to the respiratory system. However, this product does not currently meet the criteria for classification as a respiratory nuisance.
Skin contact Frequent or prolonged contact may defat and dry the skin, leading to discomfort & dermatitis.
Eye contact Causes eye irritation.

Information on toxicological effects
Acute toxicity Not classified

<table>
<thead>
<tr>
<th>Product</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encore RR2 Adhesive (mixture)</td>
<td>Acute Oral LD50 Mouse: 30714.2852 mg/kg estimated</td>
</tr>
<tr>
<td></td>
<td>Acute Oral LD50 Rat: 30714.2852 mg/kg estimated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate (471-34-1)</td>
<td>Acute Oral LD50 Mouse: 6450 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Oral LD50 Rat: 6450 mg/kg</td>
</tr>
</tbody>
</table>

Local effects Components of the product may be absorbed into the body through the skin. Contact may irritate or burn eyes.

Chronic effects Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged exposure may cause chronic effects.

Sub chronic effects Kidney injury may occur.

Carcinogenicity Hazardous by OSH criteria. This product contains crystalline silica. Silica is a known carcinogen; however in this encapsulated form the normal routes of exposure are unavailable.

ACGIH Carcinogens
- Asphalt (8052-42-4) A4 Not classifiable as a human carcinogen.
- Quartz (14808-60-7) A2 Suspected human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity
- Asphalt (8052-42-4) 2B Possibly carcinogenic to humans.
- Quartz (14808-60-7) 3 Not classifiable as to carcinogenicity to humans.
- Stoddard Solvent (8052-41-3) 1 Carcinogenic to humans.

US NTP Report on Carcinogens: Known carcinogen
- Quartz (14808-60-7) Known to be Human Carcinogen

Epidemiology Hazardous by OSHA criteria.
Neurological effects Hazardous by OSHA criteria.
Further Information Symptoms may be delayed.
12. Ecological Information

Ecotoxicological data

<table>
<thead>
<tr>
<th>Components</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate (471-34-1)</td>
<td>LC50 Western mosquitofish: &gt; 56000mg/l 96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability

Not available

13. Disposal Considerations

Waste Codes

D001: Waste Flammable material with a flash point < 140°F

Disposal instructions

Dispose of this material and its container to a hazardous or special waste collection point. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose in accordance with all applicable regulations.

14. Transport Information

DOT

Basic shipping requirements:

UN Number                  UN1999
Proper shipping name       Tars, liquid
Hazard class               Combustible liquid
Packing group              III
Environmental hazards      No
Marine pollutant           No

Additional information:

Special provisions          B1, B13, IB3, T1, TP3
Packaging exceptions       150
Packaging non bulk         203
Packaging bulk             242
ERG number                 130
Further information        If shipped by ground in quantities LESS than 119 gallons, material is not regulated as a hazardous material. When shipped in quantities GREATER than 119 gallon, container must bear DOT CLASS 3 COMBUSTIBLE label.

IATA

UN number                  UN1999
UN proper shipping name    Tars, liquid
Transport hazard class(es) Class 3
Subsidiary risk            -
Packing group              III
Environmental hazards      No
ERG Code                   3L
Special precautions for user Not available

Other information

Passenger and cargo aircraft Allowed
Cargo aircraft only        Allowed

IMDG

UN number                  UN 1999
UN proper shipping name    Tars, liquid
Transport hazard class(es) Class 3
Subsidiary risk            -
Packing group: III
Environmental hazards:
Marine pollutant: No
EmS: F-E, S-E
Special precautions for user: Not available
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

DOT Labeling (On packaging containing > 119 US gallons)

15. Regulatory Information

US Federal regulations
This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200
CERCLA/SARA Hazardous Substances – Not applicable.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04 (f)(2)
Not regulated
DEA Essential Chemical Code Number
Not regulated
Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12 (c )
Not regulated
DEA Exempt Chemical Mixtures Code Number
Not Regulated
CERCLA (Superfund) reportable quantity
None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard – Yes
Delayed Hazard – Yes
Fire Hazard – Yes
Pressure Hazard – No
Reactivity Hazard – No

Section 302 extremely hazardous substance
No
Section 311 hazardous Chemical
No

Inventory Status

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>USA &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>No</td>
</tr>
</tbody>
</table>

*A “Yes” indicates that all components of this product comply with inventory requirements administered by the governing country(s)
WARNING: This product contains a chemical known to the State of California to cause cancer

US – California Proposition 65 – CRT: Listed date/Carcinogenic substance
Asphalt (8052-42-4) Listed: January 1, 1990 Carcinogenic
Quartz (14808-60-7) Listed: October 1, 1988 Carcinogenic

US – New Jersey RTK – Substances: Listed substance
Asphalt (8052-42-4) Listed
Calcium Carbonate (471-34-1) Listed
Quartz (14808-60-7) Listed
Stoddard Solvent (8052-41-3) Listed

US – Pennsylvania RTK – Hazardous Substances: Listed substance
Asphalt (8052-42-4) Listed
Calcium Carbonate (471-34-1) Listed
Quartz (14808-60-7) Listed
Stoddard Solvent (8052-41-3) Listed

US – Pennsylvania RTK – Hazardous Substances: Special Hazard
Asphalt (8052-42-4) Special Hazard

16. Other Information

Further Information
HMIS® is a registered trade and service mark of the NPCA

HMIS® ratings
Health: 1*
Flammability: 2
Physical Hazard: 0

NFPA ratings
Health: 1
Flammability: 2
Instability: 0

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of this publication. The information given is designed only as a guidance for safe use, handling, processing, storage, transport, disposal and release and is not to be considered a warranty or quality specification. The information related 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.

Revision Date
February 15, 2016

Version #
01