SAFETY DATA SHEET

1. Product and Company Identification

PRODUCT NUMBER: 1295

PRODUCT NAME: HI-BEAD

PRODUCT DESCRIPTION: High-Temp Red RTV Silicone Gasket Maker

COMPANY INFORMATION: **PRO CHEM, INC.**
1475 Bluegrass Lakes Parkway
Alpharetta, GA 30004

COMPANY PHONE: 1-800-241-8180

EMERGENCY TELEPHONE: 1-800-241-8180

INFOTRAC: 1-800-535-5053

2. Hazards Identification

GHS CLASSIFICATION:
Gases under pressure: Liquefied gas.
Skin Corrosion/Irritation: Category 2
Serious Eye Damage/Irritation: Category 2

SIGNAL WORD:
WARNING

SYMBOL:

HAZARD STATEMENTS:
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
Causes skin irritation.

PRECAUTIONARY STATEMENTS:
General: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention: Wear protective gloves. Wear eye or face protection. Wash hands thoroughly after handling.
Response: IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage: Protect from sunlight. Store in a well-ventilated place.
Disposal: Not applicable.

HAZARDS NOT OTHERWISE SPECIFIED:
None known.

3. Composition / Information on Ingredients

CHEMICAL NAME	CAS	CONCENTRATION % by WEIGHT	PURE SUBSTANCE CLASSIFICATION
Triacetoxyethylsilane	17689-77-9	1-5	Acute Toxicity (oral) - Category 4 Skin Corrosion/Irritation - Category 1B Serious Eye Damage/Eye Irritation - Category 1
Methylsilanetriyltriacetate	4253-34-3	1-5	Acute Toxicity (oral) - Category 4 Skin Corrosion/Irritation - Category 1C Serious Eye Damage/Eye Irritation - Category 1
1,1-Difluoroethane	75-37-6	1-5	Flammable Gases - Category 1 Gases Under Pressure - Liquefied gas

Any concentration shown as a range is to protect confidentiality or is due to batch variation.
There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.
Occupational exposure limits, if available, are listed in Section 8.

4. First Aid Measures

EMERGENCY OVERVIEW

EYES: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.

SKIN: Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

INHALATION:
Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular, or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

INGESTION:
Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick, as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband.

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED:
Potential Acute Health Effects:
Eye contact: Causes serious eye irritation.
Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact: Causes skin irritation.
Ingestion: Irritating to mouth, throat, and stomach.
Over-Exposure Signs/Symptoms:
Eye contact: Adverse symptoms may include the following: pain or irritation, watering, redness.
Inhalation: No known significant effects or critical hazards.
Skin contact: Adverse symptoms may include the following: irritation, redness.
Ingestion: No known significant effects or critical hazards.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Notes to Physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific Treatments: No specific treatment.
Protection of First-Aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

5. Fire-Fighting Measures

SUITABLE FIRE EXTINGUISHING MEDIA:

Use an extinguishing agent suitable for the surrounding fire.

UNSUITABLE FIRE EXTINGUISHING MEDIA:

None known.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:

No specific fire or explosion hazard.

HAZARDOUS THERMAL DECOMPOSITION PRODUCTS:

Decomposition products may include the following materials: carbon dioxide, carbon monoxide, halogenated compounds, carbonyl halides, metal oxide/oxides.

SPECIFIC FIRE-FIGHTING METHODS:

No special precaution is required.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental Release Measures

PERSONAL PRECAUTIONS:

Non-emergency Personnel: No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Emergency Responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non- emergency personnel."

ENVIRONMENTAL PRECAUTIONS AND CLEAN-UP METHODS:

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).
Small Spill: Move containers from spill area. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Large Spill: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, watercourses, basements or confined areas. Do not dry sweep. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and Storage

SAFE HANDLING:

Protective Measures: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin, and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
General Occupational Hygiene: Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. See also Section 8 for additional information on hygiene measures.

SAFE STORAGE & INCOMPATIBILITIES:

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure Controls / Personal Protection

OCCUPATIONAL EXPOSURE LIMITS:

None.

ENGINEERING CONTROLS:

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

ENVIRONMENTAL EXPOSURE CONTROLS:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

PERSONAL PROTECTIVE EQUIPMENT:

EYE/FACE PROTECTION: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, or gases. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

SKIN PROTECTION: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

RESPIRATORY PROTECTION: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and the safe working limits of the selected respirator.

GENERAL HYGIENE CONSIDERATIONS: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

9. Physical & Chemical Properties

APPEARANCE:		**FLAMMABILITY(solid/gas):**	Not available.
Physical State:	Solid (paste)	**Upper/Lower Explosive Limit:**	Not available.
Color:	Various.	**VAPOR DENSITY:**	Not available.
ODOR:	Acetic acid odor.	**VAPOR PRESSURE:**	Not available.
ODOR THRESHOLD:	Not available.	**RELATIVE DENSITY:**	1.007
pH:	Not available.	**SOLUBILITY (water):**	Not available.
MELTING POINT:	Not available.	**AUTO-IGNITION TEMP:**	Not available.
BOILING POINT:	Not available.	**DECOMPOSITION TEMP:**	Not available.
FLASH POINT:	Closed cup: >100°C (>212°F)	**PARTITION COEFFICIENT (n-octanol/water):**	No data available.
SADT:	Not available.	**BURNING TIME:**	Not available.
EVAPORATION RATE:	Not available.	**BURNING RATE:**	Not available.
VISCOSITY:	Not available.	**SOLUBILITY:**	Not available.

10. Stability & Reactivity Information

REACTIVITY:
No specific test data related to reactivity available for this product or its ingredients.

CHEMICAL STABILITY:
The product is stable.

POSSIBILITY OF HAZARDOUS REACTIONS:
Under normal conditions of storage and use, hazardous reactions will not occur.

INCOMPATIBLE MATERIALS:
Reactive or incompatible with the following materials: oxidizing materials.

CONDITIONS TO AVOID:
No specific data.

DECOMPOSITION PRODUCTS:
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological Information

ACUTE TOXICITY

Product/ingredient name	Result	Species	Dose	Exposure
Methylsilanetriyl triacetate	LD50 Oral	Rat	2060 mg/kg	-

IRRITATION/CORROSION

Product/ingredient name	Result	Species	Score	Exposure	Observation
Silica	Eyes - Mild irritant	Rabbit	-	24 hours 25 mg	-

SENSITIZATION:
There is no data available.

MUTAGENICITY:
There is no data available.

CARCINOGENICITY:
There is no data available.

REPRODUCTIVE TOXICITY:
There is no data available.

TERATOGENICITY:
There is no data available.

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE):
There is no data available.

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE):
There is no data available.

ASPIRATION HAZARD:
There is no data available.

INFORMATION ON THE LIKELY ROUTES OF EXPOSURE:
Dermal contact. Eye contact. Inhalation. Ingestion.

POTENTIAL ACUTE HEALTH EFFECTS

Eye Contact: Causes serious eye irritation.

Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact: Causes skin irritation.
Ingestion: Irritating to mouth, throat and stomach.

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS:

Eye: Adverse symptoms may include the following: pain or irritation, watering, redness.
Inhalation: No known significant effects or critical hazards.
Skin: Adverse symptoms may include the following: irritation, redness.
Ingestion: No known significant effects or critical hazards.

DELAYED & IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT AND LONG TERM EXPOSURE:

Short-Term Exposure:
Immediate: No known significant effects or critical hazards.
Delayed: No known significant effects or critical hazards.

Long-Term Exposure:
Immediate: No known significant effects or critical hazards.
Delayed: No known significant effects or critical hazards.

Potential Chronic Health Effects:
General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental: No known significant effects or critical hazards.
Fertility: No known significant effects or critical hazards.

NUMERICAL MEASURES OF TOXICITY:

Acute Toxicity Estimates: There is no data available.

12. Ecological Information

TOXICITY:
There is no data available.

PERSISTENCE AND DEGRADABILITY:
There is no data available.

BIOACCUMULATIVE POTENTIAL:
There is no data available.

MOBILITY IN SOIL:

Soil/water partition coefficient (K_{OC}): There is no data available.

OTHER ADVERSE EFFECTS:
No known significant effects or critical hazards.

13. Disposal Consideration

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions, and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

14. Transportation Information

DOT:
UN NUMBER: UN1950
UN PROPER SHIPPING NAME: Aerosols, flammable (each not exceeding 1 L capacity) (1, 1-Difluoroethane).
TRANSPORT HAZARD CLASS(ES):
Class: 2.1
PACKING GROUP: --
ENVIRONMENTAL HAZARDS: No.
REMARKS: Limited Quanity Exemption.

IATA:
UN NUMBER: UN1950
UN PROPER SHIPPING NAME: Aerosols, flammable (each not exceeding 1 L capacity) (1, 1-Difluoroethane).
TRANSPORT HAZARD CLASS(ES):
Class: 2.1
PACKING GROUP: --
ENVIRONMENTAL HAZARDS: No.
REMARKS: Limited Quanity Exemption.

IMDG:
UN NUMBER: UN1950
UN PROPER SHIPPING NAME: Aerosols, flammable (each not exceeding 1 L capacity) (1, 1-Difluoroethane).
TRANSPORT HAZARD CLASS(ES):
Class: 2.1
PACKING GROUP: --
ENVIRONMENTAL HAZARDS: No.
REMARKS: Limited Quanity Exemption.

SPECIAL PRECAUTIONS FOR USER:

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:
Not available.

15. Regulatory Information

US FEDERAL REGULATIONS:

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act (CAA) 112 regulated flammable substances: 1,1-Difluoroethane

CLEAN AIR ACT SECTION 112 (B) HAZARDOUS AIR POLLUTANTS (HAPs):

Not listed.

CLEAN AIR ACT SECTION 602 CLASS I SUBSTANCES:

Not listed.

CLEAN AIR ACT SECTION 602 CLASS II SUBSTANCES:

Not listed.

DEA LIST I CHEMICALS (PRECURSOR CHEMICALS):

Not listed.

DEA LIST II CHEMICALS (ESSENTIAL CHEMICALS):

Not listed.

SARA 302/304:

COMPOSITION/INFORMATION ON INGREDIENTS: No products were found.

SARA 304 RQ:

Not applicable

SARA 311/312

CLASSIFICATION: Sudden release of pressure immediate (acute) health hazard

Chemical Name	%	Fire Hazard	Sudden Release of Pressure	Reactive	Immediate (acute) Health Hazard	Delayed (chronic) Health Hazard
Triacetoxyethylsilane	1-5	No	No	No	Yes	No
Methylsilanetriyltriacetate	1-5	No	No	No	Yes	No

STATE REGULATIONS:

Massachusetts: The following components are listed: Silicon dioxide; 1,1-Difluoroethane

New York: None of the components are listed.

New Jersey: The following components are listed: 1,1-Difluoroethane

Pennsylvania: The following components are listed: Silicon dioxide

California Prop 65: No products were found.

INTERNATIONAL INVENTORIES:

Australia inventory (AICS): All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Japan inventory: Not determined.

Korea inventory: All components are listed or exempted.

Malaysia inventory (EHS Register): Not determined.

New Zealand inventory of Chemicals (NZIoC): All components are listed or exempted.

Philippines inventory (PICCS): All components are listed or exempted.

Taiwan inventory (CSNN): Not determined.

CHEMICAL WEAPONS CONVENTION LIST SCHEDULE I CHEMICALS:

Not listed.

CHEMICAL WEAPONS CONVENTION LIST SCHEDULE II CHEMICALS:

Not listed.

CHEMICAL WEAPONS CONVENTION LIST SCHEDULE III CHEMICALS:

Not listed.

16. Other Information

KEY TO ABBREVIATIONS:

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships,1973 as modified by the Protocol of 1978. \
("Marpol" = marine pollution)

UN = United Nations

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