**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**
**600 Fifth Street, NW, Washington, DC 20001-2651**
**AMENDMENT OF SOLICITATION / MODIFICATION OF CONTRACT**

| | |
|---|---|
| 1. AMENDMENT/MODIFICATION<br>A001 | 2<br>July 14, 2015 |
| 3. ISSUED BY PURCHASING SECTION<br>Office of Procurement and Materials<br>Lily Cheung, Procurement Manager<br>600 Fifth Street, NW<br>Washington, DC 20001 | 4. ADMINISTERED BY<br>Same as block 3. |
| 5. CONTRACTOR<br>NAME AND ADDRESS | 6. FORM TYPE<br>(Check only one)<br>X AMENDMENT OF SOLICITATION NO CQI15239R<br>DATED July 8, 2015 (see block 7) |

**7. THIS BLOCK APPLIES ONLY TO AMENDMENTS OF SOLICITATIONS**

X The above numbered solicitation is amended as set forth in block 10. The hour and date specified for receipt of Offers ___ is extended,

X is not extended. Offerors must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation, or as amended, by one of the following methods; (a) By signing and returning two copies of this amendment; (b) by acknowledging receipt of this amendment on each copy of the offer submitted; or (c) by separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE ISSUING OFFICE PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If, by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**8. ACCOUNTING AND APPROPRIATION DATA (If required)**

**9. THIS BLOCK APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS**

**10. DESCRIPTION OF AMENDMENT/MODIFICATION**

A. Solicitation CQI15239R is amended to incorporate Appendix A Questions and Answers.

Except as provided herein, all terms and conditions of the document referenced in block 10, as heretofore changed, remain unchanged and in full force and effect.

| | |
|---|---|
| 11. CONTRACTOR/OFFEROR IS REQUIRED TO SIGN THIS MODIFICATION AND RETURN TO ISSUING OFFICE. | ☐ CONTRACTOR/OFFEROR IS NOT REQUIRED TO SIGN THIS DOCUMENT |
| 12. NAME OF CONTRACTOR/OFFICE<br><br>BY _____<br>(Signature of person authorized to sign) | 15. WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY<br><br>BY _____<br>(Signature of Contracting Officer) |

Appendix A
Questions and Answers
CQI15239R

1) Line 12, Inventory Part # 055004026 with description PRIMER, SURFACE: COMMONNAME: RUST CONVERTER- you specify 48 EA, what is the container size?

   Answer: quart

2) Line 13, Inventory Part # 065000132 with description BUCKET: MATERIAL: GALV STL - what size bucket required?

   Answer: 12 quart

3) Please provide drawings for the following items:

| | | |
|---|---|---|
| 801550023 | BRACKET:ENGINE,COOLANT FILTER,SERIES 50 ENGINE, TEXT:OEM ONLY | No drawings for Detroit Diesel 23520330 |
| 822700019 | GASKET,RADIATOR-STX:1/2 IN THK,CORK, TEXT:MODINE P/N 6322558 OEM ONLY, USE 4 PER JOB UI-UM | No drawings for MODINE PART<br>New Flyer number 6322558 |
| 921550023 | WASHER,FLAT-STX:3/4 IN,HARDENED,BRAKE SPIDER, TEXT:USE 14 PER JOB, UI=UM, 50 PER PACK, ARVIN MERITOR 1229V1556 ONLY | No drawings see link below<br>  <br>Meritor drawing link |
| 984550012 | GASKET:WATER PUMP HOUSING, TEXT:OEM ONLY, OUTLET | No drawing available |
| 984560003 | GASKET:THERMOSTAT HOUSING -CUMMINS 8.3 ENGINE,(CUMMINS PART# 3913032) | No Drawing, see picture<br>  |
| 987650499 | GASKET,FAREBOX-STX:DATA PROBE | No drawing available |
| A18357044 | BRACKET:ASSEMBLY,CABLE SUPPORT,FITS 6K, TEXT:EMI: 150107 | Drawing is proprietary and cannot be distributed. |
| B18355028 | BRACKET:GROUNDING,RAIL TRUCK | See Drawing B18-35-5028 - Bracket, Grounding, Rail Truck, Rev 0 |
| R18327167 | WASHER,FLAT: | No drawing available |
| R45100103 | GASKET: MATERIAL: URETHANE/WAX, TYPE: NO SEEP | No drawing available, please click on link for details http://www.oatey.com/brands/harvey/products/bowl-setting-wax-gaskets-and-bolts/wax-toilet-bowl-gaskets-installation-kits/no-seep-specialty-reinforced-gaskets |
| R51360092 | DIE, COMPRESSION: CERTIFICATION: None, SIZE: 6 AWG, COMMONNAME: Compression Die | Commercial Items – No drawing |

| | | |
|---|---|---|
| R53100072 | WASHER,LOCK-STX:1/2 IN,BRONZE, TEXT:MED | Commercial Items – No drawing |
| R95150041 | SHEET, ALUMINUM: WIDTH: 48 INCHES, LENGTH: 144 INCHES, USE: Characteristics: Lightweight, semi-smooth surface with a dull mill finish. Workability: Excellent candidate for most processing techniques. Most versatile of the heat treatable aluminum alloys | Commercial Items – No drawing |

4) The item R62400419 LAMP,FLUORESCENT-STX:DOUBLE BIAX COMPACT 600 EA 30042 F13BX/827/ECO: The #30042 is product code for Philip PL-L40W/830/4P/RS/IS, the description you have is LAMP,FLUORESCENT-STX:DOUBLE BIAX COMPACT Please clarify by description what lamp you require. GE #97573 F13BX/827/ECO Matches your description however the part number is a GE brand and not close to the one listed in the RFI

   Answer: We are looking for the GE #97573 F13BX/827/ECO part. The Philip PL-L40W/830/4P/RS/IS will not work as a replacement.

5) For WMATA part # R59400013, with (2) hole lugs, there is a measurement of space between the two holes. With a 3/8 in hole lug, the common spacing is 1in. Is the 1inch spacing what you need?

| | |
|---|---|
| R59400013 | CONNECTOR, TERMINAL: TERMINATIONEND: (1) 3/8 IN HOLE, CONDUCTOR: 4 AWG, TYPE: LUG, COMMONNAME: TWO HOLE COMPRESSION LUG |

   Answer: See Drawing 326803 drawing R59400013

6) The description on this says Class T fuse, however, all of the P/Ns listed for this represent Class J Fuses. Do you need them based off the description or P/Ns?

| | |
|---|---|
| R59200231 | FUSE:CLASS T,15AMP,600V, TEXT:STD. PK. 10 EA |

   **Answer:** The J Class part number is correct, and the T Class description is incorrect.

7) **Line 225,** Excel Price Sheet: "ANCHOR, STUD: LENGTH: 7 IN, CERTIFICATION: American Concrete Institute 355.2, ICC-ES Acceptance Criteria AC-193, ICC-ES ESR-2818 Category 1 Cracked and Uncracked Concrete, ICC-ES ESR-2966 Concrete Masonry Units (CMU), TYPE: WEDGE EXPANSION, DIAMETER: 5/8". The VENDOR P/N 1 is listed as 5/8"X7"; does this indicate there in no approved WMATA vendor? If yes, will the newly approved vendor incur the cost of the FAI or would the ICC-ES Report be sufficient?

   **Answer:** There is an approved vendor for this item. An FAI is not required for this part, but proof that the part can meet the requirements listed in the description is required.

8) Line 201 & 202 Excel Price Sheet: "DRILLBIT, MASONRY: LENGTH: 8 IN, FLUTES: 2, TYPE: ROTARY HAMMER, DIAMETER: 3/4 IN, SHANK: SDS PLUS, POINT: 118 DEG, MATERIAL: CARBIDE TIP; DRILLBIT, MASONRY: LENGTH: 6 IN, DRILLINGDEPTH: 4 IN, FLUTES: 2, TYPE: ROTARY HAMMER, DIAMETER: 1/2 IN, SHANK: 3/8 IN DIA RND, POINT: 118 DEG, MATERIAL: CARBIDE TIP". There is one approved vendor for Line 201 and 4 approved vendors for Line 202. If Hilti drill bits are accepted will Hilti incur the cost of FAI? Or will Hilti's ISO 9001 Certification be acceptable?

   Answer: FAI will not be required. For these two items, a catalog page or manufacturer specification page will be accepted as proof of meeting requirements listed in the description. The part number quoted must be the same as the part number listed on the catalog page or specification page.

9) Please provide specifications, drawings for R51800008.

Answer: Drawing is proprietary and cannot be distributed. NOSHOK, Inc. is the manufacturer. (Note from Leah: this is a 1 K part, it is very unlikely that they will test alternatives.)

10) Do I have to propose on all the items?

Answer: Please select the items you wish to propose. You do not have to propose on all the items.

11) Is there any way to identify which parts are for your escalator group only?

Answer: WMATA's escalator and elevator part # start with R381 and R383.

12) What is the last price paid for an item?

Answer: You can request for last paid price for a specific WMATA part # by following our PARP process, see below for policy and procedure:

WMATA Public Access to Records Policy (PARP) can be found in the link below:
http://www.wmata.com/about_metro/docs/pi_9_3_1.pdf

13) The following WMATA Item were removed from Price Sheet:

| | |
|---|---|
| 881550324 | MODULE:INPUT/OUTPUT,FITS VAR BUSES, TEXT:T2 DI0 |
| 986720013 | COMPRESSOR,AIR:2 CYLINDER ASSEMBLY, TEXT:ASSEMBLY, OEM ONLY |
| F64171324 | READER,CREDIT CARD-STX:VALIDATOR,BANK NOTE,FITS TDM |
| F64171324 | READER,CREDIT CARD-STX:VALIDATOR,BANK NOTE,FITS TDM |
| R18360111 | PLUNGER:SEAT |
| R23816058 | KIT:REPAIR,VALVE,PNEUMATIC,REMOTE MAIN, TEXT:REMOTE MAIN VALVE REPAIR KIT<br>SALIENT CHARACTERISTICS: NUMATIC VALVE MODEL BB5, REPAIR KIT SPA55-K3, INLCLUDES ALL SEALS AND WEAR ITEMS TO REPAIR THE SOLENOID-PILOT ACTUATED / BB5 VALVES. |
| R23820009 | HORN: FITS: PETTIBONE 445E, TYPE: AIR |
| R23820050 | BLOWER:HEATER ASSEMBLY,PETTIBONE 445E |
| R79300105 | FUEL:LIGHTER,5 OZ, TEXT:C, MUST BE A FLUID LIQUID NOT A GAS PRODUCT, MSDS 1974/2626 |
| R80100085 | COATING:EXTERIOR BRASS ACRYLIC LACQUER,1 GAL, TEXT:MSDS 3480 |
| R80200007 | COVER:ROLLER,4 IN WD X 3/4 IN NAP, TEXT:SOLD 96 PER BOX |

14) Item R68300032 is added to Price Sheet Amendment 1. Please refer to the attached SDS 14102.

**END OF AMENDMENT A001**

# SAFETY DATA SHEET

Halocarbon R-407C

## Section 1. Identification

**GHS product identifier** : Halocarbon R-407C

**Other means of identification** : ASPEN R-407C, HFC 407C

**Product use** : Synthetic/Analytical chemistry.

**Synonym** : ASPEN R-407C, HFC 407C

**SDS #** : 006202

**Supplier's details** : Airgas USA, LLC and its affiliates
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253

**Emergency telephone number (with hours of operation)** : 1-866-734-3438

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : GASES UNDER PRESSURE - Compressed gas

**GHS label elements**

**Hazard pictograms** :

**Signal word** : Warning

**Hazard statements** : Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.

**Precautionary statements**

**General** : Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction.

**Prevention** : Use and store only outdoors or in a well ventilated place.

**Response** : Not applicable.

**Storage** : Protect from sunlight. Protect from sunlight when ambient temperature exceeds 52°C/125°F. Store in a well-ventilated place.

**Disposal** : Not applicable.

**Hazards not otherwise classified** : In addition to any other important health or physical hazards, this product may displace oxygen and cause rapid suffocation.

# Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**Other means of identification** : ASPEN R-407C, HFC 407C

## CAS number/other identifiers

**CAS number** : Not applicable.

**Product code** : 006202

| Ingredient name | % | CAS number |
|---|---|---|
| 1,1,1,2 - tetrafluoroethane | 52 | 811-97-2 |
| Pentafluoroethane | 25 | 354-33-6 |
| Difluoromethane | 23 | 75-10-5 |

**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.**

# Section 4. First aid measures

## Description of necessary first aid measures

**Eye contact** : 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 10 minutes. Get medical attention if irritation occurs.

**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.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** : As this product is a gas, refer to the inhalation section.

## Most important symptoms/effects, acute and delayed

### Potential acute health effects

**Eye contact** : Contact with rapidly expanding gas may cause burns or frostbite.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : Contact with rapidly expanding gas may cause burns or frostbite.

**Frostbite** : Try to warm up the frozen tissues and seek medical attention.

**Ingestion** : As this product is a gas, refer to the inhalation section.

### Over-exposure signs/symptoms

**Eye contact** : No specific data.

**Inhalation** : No specific data.

**Skin contact** : No specific data.

**Ingestion** : No specific data.

## Indication of immediate medical attention and special treatment needed, if necessary

# Section 4. First aid measures

**Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**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.

**See toxicological information (Section 11)**

# Section 5. Fire-fighting measures

## Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : Contains gas under pressure. In a fire or if heated, a pressure increase will occur and the container may burst or explode.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

# Section 6. Accidental release measures

## Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised 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** : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

## Methods and materials for containment and cleaning up

**Small spill** : Immediately contact emergency personnel. Stop leak if without risk.

**Large spill** : Immediately contact emergency personnel. Stop leak if without risk. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

# Section 7. Handling and storage

## Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Empty containers retain product residue and can be hazardous. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.

**Advice on 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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Keep container tightly closed and sealed until ready for use. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F).

# Section 8. Exposure controls/personal protection

## Control parameters

### Occupational exposure limits

None.

**Appropriate 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. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## Individual protection measures

**Hygiene measures** : 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.

**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, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

## Skin protection

**Hand 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.

## Section 8. Exposure controls/personal protection

**Body protection** : 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.

**Other skin protection** : 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, air-purifying or air-fed 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.

## Section 9. Physical and chemical properties

**Appearance**

**Physical state** : Gas.

**Color** : Not available.

**Melting/freezing point** : -103°C (-153.4°F) This is based on data for the following ingredient: pentafluoroethane. Weighted average: -113.19°C (-171.7°F)

**Critical temperature** : Lowest known value: 72.4°C (162.3°F) (pentafluoroethane).

**Odor** : Not available.

**Odor threshold** : Not available.

**pH** : Not available.

**Flash point** : Not available.

**Burning time** : Not applicable.

**Burning rate** : Not applicable.

**Evaporation rate** : Not available.

**Flammability (solid, gas)** : Not available.

**Lower and upper explosive (flammable) limits** : Not available.

**Vapor pressure** : Not available.

**Vapor density** : Highest known value: 4.2 (Air = 1) (pentafluoroethane). Weighted average: 3.73 (Air = 1)

**Gas Density (lb/ft $^3$)** : Weighted average: 0.34

**Relative density** : Not applicable.

**Solubility** : Not available.

**Solubility in water** : Not available.

**Partition coefficient: n-octanol/water** : Not available.

**Auto-ignition temperature** : Not available.

**Decomposition temperature** : Not available.

**SADT** : Not available.

**Viscosity** : Not applicable.

## Section 10. Stability and reactivity

**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.

**Conditions to avoid** : No specific data.

**Incompatibility with various substances** : Reactive with, acids.

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

**Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Not available.

#### Irritation/Corrosion

Not available.

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

# Section 11. Toxicological information

## Potential acute health effects

**Eye contact** : Contact with rapidly expanding gas may cause burns or frostbite.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : Contact with rapidly expanding gas may cause burns or frostbite.

**Ingestion** : As this product is a gas, refer to the inhalation section.

## Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.

**Inhalation** : No specific data.

**Skin contact** : No specific data.

**Ingestion** : No specific data.

## Delayed and immediate effects and also chronic effects from short and long term exposure

### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**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 effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

## Numerical measures of toxicity

### Acute toxicity estimates

Not available.

# Section 12. Ecological information

## Toxicity

Not available.

## Persistence and degradability

Not available.

## Bioaccumulative potential

Not available.

# Section 12. Ecological information

**Mobility in soil**

**Soil/water partition coefficient ($K_{OC}$)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

# Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times 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. Empty Airgas-owned pressure vessels should be returned to Airgas. 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. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

# Section 14. Transport information

| | DOT | TDG | Mexico | IMDG | IATA |
|---|---|---|---|---|---|
| **UN number** | UN3340 | UN3340 | UN3340 | UN3340 | UN3340 |
| **UN proper shipping name** | Refrigerant Gas R 407C | Refrigerant Gas R 407C | Refrigerant Gas R 407C | Refrigerant Gas R 407C | Refrigerant Gas R 407C |
| **Transport hazard class(es)** | 2.2   | 2.2   | 2.2   | 2.2   | 2.2   |
| **Packing group** | - | - | - | - | - |
| **Environment** | No. | No. | No. | No. | No. |
| **Additional information** | - | **Explosive Limit and Limited Quantity Index** 0.125<br><br>**Passenger Carrying Road or Rail Index** 75 | - | - | - |

**"Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product."**

**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.

# Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) CDR Exempt/Partial exemption**: Not determined

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

**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

**Composition/information on ingredients**

No products were found.

**State regulations**

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : None of the components are listed.

**Pennsylvania** : None of the components are listed.

**Canada inventory** : All components are listed or exempted.

**International regulations**

**International lists** : **Australia inventory (AICS)**: All components are listed or exempted.
**China inventory (IECSC)**: All components are listed or exempted.
**Japan inventory**: All components are listed or exempted.
**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

# Section 15. Regulatory information

## Canada

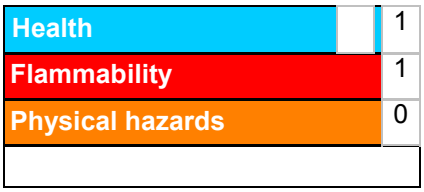
**WHMIS (Canada)** : Class A: Compressed gas.

**CEPA Toxic substances**: The following components are listed: Volatile organic compounds; Volatile organic compounds; Volatile organic compounds
**Canadian ARET**: None of the components are listed.
**Canadian NPRI**: The following components are listed: Volatile organic compounds; Volatile organic compounds; Volatile organic compounds
**Alberta Designated Substances**: None of the components are listed.
**Ontario Designated Substances**: None of the components are listed.
**Quebec Designated Substances**: None of the components are listed.

# Section 16. Other information

**Canada Label requirements** : Class A: Compressed gas.

## Hazardous Material Information System (U.S.A.)




**Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.**

**The customer is responsible for determining the PPE code for this material.**

## National Fire Protection Association (U.S.A.)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**Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.**

## History

**Date of printing** : 5/21/2015.

**Date of issue/Date of revision** : 5/21/2015.

**Date of previous issue** : 4/16/2015.

**Version** : 1

# Section 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 NationsACGIH – American Conference of Governmental Industrial Hygienists
AIHA – American Industrial Hygiene Association
CAS – Chemical Abstract Services
CEPA – Canadian Environmental Protection Act
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act (EPA)
CFR – United States Code of Federal Regulations
CPR – Controlled Products Regulations
DSL – Domestic Substances List
GWP – Global Warming Potential
IARC – International Agency for Research on Cancer
ICAO – International Civil Aviation Organisation
Inh – Inhalation
LC – Lethal concentration
LD – Lethal dosage
NDSL – Non-Domestic Substances List
NIOSH – National Institute for Occupational Safety and Health
TDG – Canadian Transportation of Dangerous Goods Act and Regulations
TLV – Threshold Limit Value
TSCA – Toxic Substances Control Act
WEEL – Workplace Environmental Exposure Level
WHMIS – Canadian Workplace Hazardous Material Information System

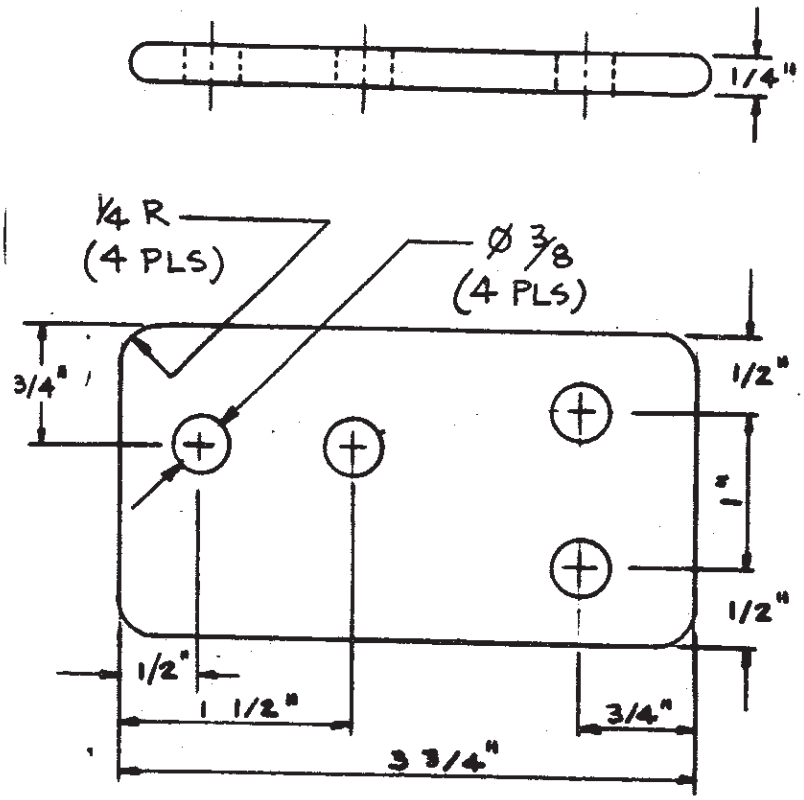
**References** : Not available.

**Indicates information that has changed from previously issued version.**

## Notice to reader

**To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.**
**Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.**

| WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY | RAIL CAR ENGINEERING SUPPORT | | |
|---|---|---|---|
| DRAWN W. W. Freeman DATE 4-29-97 | TITLE: BREDA TRUCK GROUNDING PLATE | | |
| CHECKED [signature] DATE 4-29-97 | SCALE: NTS | DWG.NO. 18355028 | SHT: 1 of 1 |
| APPROVED [signature] DATE 4-30-97 | WMATA PART NO: | B18-35-5028 | |




MATERIAL:
COPPER (UNS C11000) C110
IN ACCORDANCE WITH
ASTM B133 AND
ASTM B137.

TOLERANCE:
UNLESS OTHERWISE
SPECIFIED ± 1/64

| REVISION | | | REFERENCE DRAWING | |
|---|---|---|---|---|
| DATE | BY | DESCRIPTION | NUMBER | TITLE |
| / / | | | | |
| / / | | | | |

| LOC | DIST |
|---|---|
| G | 86 |

REVISIONS

| P | LTR | DESCRIPTION | DATE | DWN | APVD |
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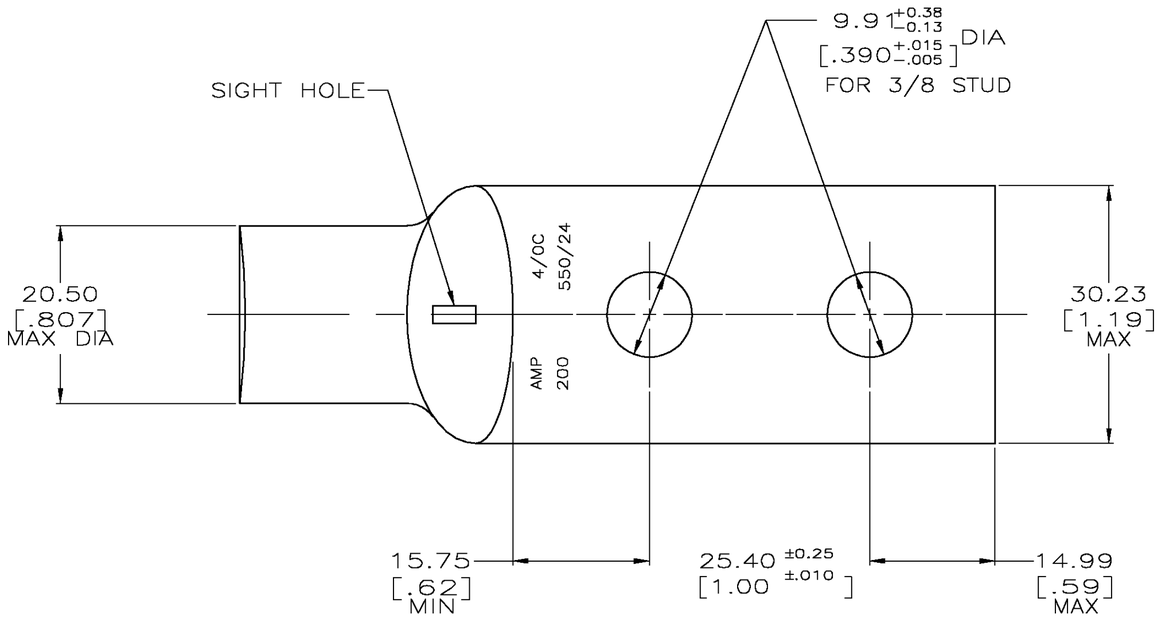
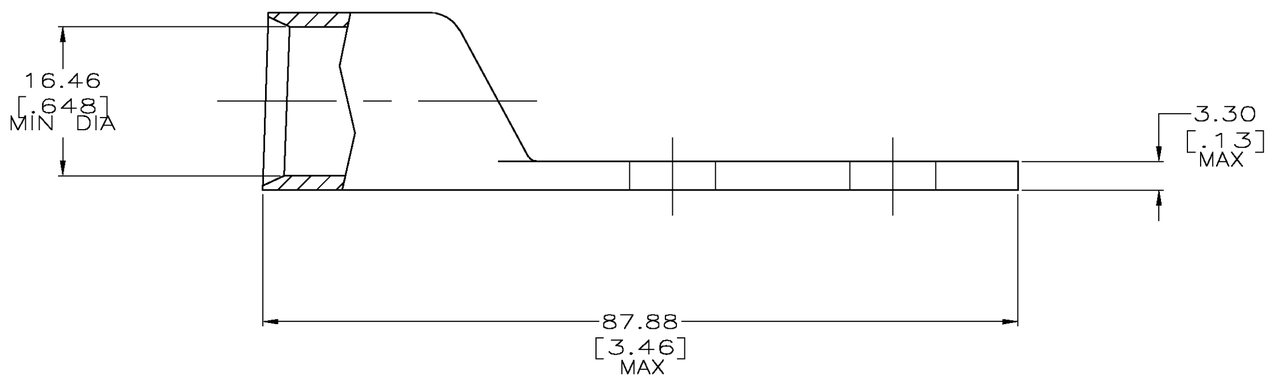
| | Y | REV PER 0G3A-0723-03 | 12NOV03 | jr | MS |




1 CIRCULAR MIL RANGE: 190,000–231,000 CM

△2 TIN PLATE 0.00381 [.000150] MIN THK PER ASTM B545

△3 CLEANED, UNPLATED

△4 COPPER PER ASTM B–75, ANNEALED

| | |
|---|---|
| △3 | 326803-5 |
| △2 | 326803 |
| FINISH | PART NO |

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: INCHES

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ± –
1 PLC ± –
2 PLC ± –
3 PLC ± –
4 PLC ± –
ANGLES ± –

MATERIAL – △4

FINISH SEE TABLE

DWN DK SCHRUM 02/28/90
CHK AJ KAUFMAN 8/10/92
APVD J MECKLEY 8/10/92
PRODUCT SPEC —
APPLICATION SPEC —
WEIGHT .142 LBS

CUSTOMER DRAWING

Tyco Electronics Corporation
Harrisburg, PA 17105

NAME TERMINAL, AMPOWER, WIRE SIZE: 4/0 AWG

| SIZE | CAGE CODE | DRAWING NO | RESTRICTED TO |
|---|---|---|---|
| A2 | 00779 | C-326803 | — |

SCALE 2:1 SHEET 1 OF 1 REV Y

326803