Standard Operating Procedure (SOP) for
P-80® Temporary Rubber Assembly Lubricants

A. STORAGE & HANDLING

1. P-80® lubricants should be stored at temperatures between 2˚ – 30˚C (36˚ – 86˚F) in the original sealed container. Do not store outdoors in direct sunlight during warm weather.

2. For proper inventory control, use oldest material first. Each container has a lot number that gives the date (yymmdd) that the material was produced. For instance, lot number 140105 was produced in 2014 (14), during January (01), on the fifth day (05). If your plant personnel know this dating system, they can avoid using new material while older stock is available.

3. Before dispensing P-80 Emulsion and P-80 Emulsion IFC from drums, stir with a mixing recirculation pump or folding propeller mixer for 5 to 10 minutes to ensure a homogenous mixture is drawn off. If a hold tank is used, agitate the lubricant before it is fed to assembly equipment. Smaller containers should be shaken or stirred prior to use. Never use air agitation on any P-80 product. Bubbling compressed air through P-80 lubricants may introduce bacteria that can overpower the preservatives causing separation or spoilage.

4. Store P-80 lubricants in a sealed container when not in use. Do not pour dispensed product back into the original container.

5. P-80 Emulsion IFC and P-80 THIX IFC meet the requirements of 21 CFR 178.3570, which controls lubricants for incidental food contact. Use the minimum amount of lubricant needed to lubricate the part. Apply it in a way that minimizes food contact.

6. All equipment and storage tanks, including transfer lines, containers, reservoirs, mixers, and pumps in contact with P-80 lubricants should be cleaned at least once a month using a mild detergent such as International Products’ LF2100® Liquid Low-Foam Cleaner or Micro-90® Concentrated Cleaning Solution. Rinse with potable water. Samples of each cleaner are available from International Products Corporation. Follow cleaning with a sanitizer rinse (see section B for details). This procedure is particularly important in hot or dirty work areas.

7. Do not mix P-80 with other chemicals.

8. Do not dilute P-80 with water.

9. Excess P-80 can be wiped or washed away with soap and water.

10. For safety details and shelf life, please refer to the appropriate Safety Data Sheets.
A cleaning/sanitizing procedure must be followed regularly to ensure optimal performance and to avoid any unnecessary disposal of unused P-80.

1. At least monthly, any materials coming in contact with P-80 must be cleaned and sanitized to prevent bacterial growth. The cleaning frequency may need to be adjusted based on the overall cleanliness of the plant, the temperature of the work environment, and the frequency and length of downtime. Developing a preventive maintenance program is particularly important in hot or dirty work areas.

2. An effective and easy cleaning/sanitation procedure is to mix 8 ounces of household Clorox bleach into one gallon of water. This solution can be used to clean tanks, transfer containers, lines, sponges, brushes, pumps, and any other material used regularly with P-80. Follow the cleaning with a thorough water rinse.

3. The dedicated pump should be cleaned and sanitized before transferring it to a fresh drum of P-80.

4. At the end of the day, any P-80 remaining in open containers should be covered. Never add used P-80 to fresh P-80, otherwise bacterial contamination may occur. Fresh P-80 should be used at the start of the next shift.

5. Once a preventive maintenance program is established, the P-80 system will remain effective and problem free.

C. APPLICATION METHODS

1. **Dip/Dunk Tank Application Procedure**: This technique is the most common for P-80 where the amount of lubricant transferred to the rubber part is not critical. Pour P-80 in a clean container. While wearing rubber gloves, dip the rubber part into P-80. Remove the part and shake-off excess P-80 before assembly. Wearing cotton gloves over rubber gloves may help with the grip. Cover any unused P-80 to prevent evaporation or dust particulates from settling in the material.

2. **Brush/Sponge Procedure**: This method allows for a more controlled volume of P-80 to be applied than the Dip/Dunk Method. Pour P-80 into a clean container. Paint brushes, foam brushes or sponges may be used to apply P-80 to the rubber part. Another technique is to drag the part across a sponge that is sitting in the P-80 container. Hollow-handle dishwashing wands are another way of delivering a small volume to the rubber part.

3. **Manual Spray Procedure**: This method allows for a more controlled volume of P-80 to be applied than the Dip/Dunk Method. P-80 is available for purchase in disposable 1-liter bottles that can utilize a 28mm spray nozzle. This 1-liter bottle is to be discarded appropriately when emptied. The spray head is to be replaced every month. To prevent clogging, clean the spray nozzle with hot water at the end of the day.
C. APPLICATION METHODS (cont.)

4. Automated System Application Procedure: This technique creates a closed system, which minimizes the potential for any contamination and ensures application consistency. An automated lubrication system may be used to apply the P-80 products. In general, there are no wrong spray configurations to use with P-80, and a number of spray and nozzle manufacturers will provide assistance with setting up the appropriate system. However, **compressed air should never be used to agitate P-80 and there should be no overspray product return lines to the drum. Both of these could cause bacterial contamination.**

D. DRUM/TOTE HANDLING

1. After opening a new drum of P-80, proper dispensing procedures must be followed in order to obtain the most benefit from P-80. Each drum is equipped with a spigot that can be screwed into the center of the 2 inch bung opening after the center is punched out. A drum truck should be used to turn a drum on its side to facilitate dispensing P-80.

2. Do not pour dispensed P-80 back into the original drum/tote.

3. An appropriate **dedicated pump** should be used by inserting it into the 2 inch bung opening. A collar may be needed to secure the pump to the drum. The other smaller bung opening should be opened sufficiently to allow for ventilation while P-80 is being dispensed.

4. At the beginning of each shift, the drum should be mixed for 5—10 minutes. **Compressed air should never be used to agitate P-80.**

5. Use a pump tube type mixer that will allow you to both mix in the drum and dispense P-80. The pump tube mixer should be made of either stainless steel or polypropylene.

6. Drum/Tote mixing-pump suppliers;
   A. Lutz 1-800-843-3907
      www.lutzpumps.com
   B. McMaster-Carr 609-259-8900
      www.mcmaster.com
   C. Cole Parmer 1-800-247-2929
      www.coleparmer.com
   D. Grainger 1-800-GRAINGER
      www.grainger.com