



- TECHNICAL MEMORANDUM -

**Date:** July 1<sup>st</sup>, 2020  
**Author:** Kristen Thoreson, Director of Research & Development, Todd Herrington, Global PetroFix Product Manager, James Harvey, Production Manager  
**Subject:** **PetroFix: On-Site Product Storage Requirements During Freezing or Hot Weather**

---

The REGENESIS R&D and operations teams have developed remediation products that are compatible with most typically encountered storage environments. However, there are conditions, notably freezing during winter or high heat in the summer, that can promote and accelerate product degradation.

While it is best practice to avoid prolonged exposure to freezing weather or prolonged exposure to heat and direct sunlight with all products, the concern is greatest for colloidal products like PetroFix. Accordingly, it is necessary to consider the on-site product storage environment where you might encounter freezing weather or hot summer projects and make accommodations to avoid product deterioration.

Storage:

- Store away from incompatible materials
- Store in original closed container
- Store at temperatures between 40°F and 95°F
- Do not allow material to freeze
- Store product out of direct sunlight and ventilate to keep below 95°F
- Dispose of waste and residues in accordance with local authority requirements

If there is concern about storing the PetroFix in temperatures where it might freeze or have prolonged storage times in heat, please consider separating your PetroFix shipments into multiple shipments to decrease on-site storage time and heating or cooling logistics.

Failure to follow these procedures will void all REGENESIS product warranty obligations.

**Storage Requirements During Freezing Weather**

- Store PetroFix in heated storage to prevent freezing. If a heated storage is not available an example of an in-field heating method is to store the PetroFix in an on-site Conex box with portable heaters (such as a propane heater) and draping the PetroFix drums with concrete curing blankets for extra insulation. To keep PetroFix from freezing the day of injections we recommend mixing and injecting soon after removing from heated storage or to use immersion heaters in field if PetroFix is to be exposed to freezing weather during transport and mixing and injection activities that day.
- On a weekly basis inspect containers that are stored in the freezing weather. Check for any settling on the bottom of the containers.
  - Mixing may help keep the product in good form
  - Inspections can provide an early warning or identification of an issue, allowing more time to implement a fix if necessary.



### **Storage Requirements During Hot Weather**

- Store PetroFix out of direct sunlight and keep product temperature below 95°F.  
Accommodations for on-site storage must be considered when the average maximum daytime temperature may exceed 95°F. These conditions can be encountered for product exposed to direct sunlight or stored within closed, unventilated storage containers. An option to store product outside is to keep it underneath a light-colored tarp or to use other methods to prevent exposure to sunlight and allow ventilation around drums.
- On a weekly basis inspect containers that are stored in the hot weather. Check for any settling on the bottom of the containers.
  - Mixing may help keep the product in good form
  - Inspections can provide an early warning or identification of an issue, allowing more time to implement a fix if necessary.

### ***What should to do if product settling or any other atypical product characteristics are found?***

- Please contact the REGENESIS District Manager or Product Manager and provide as much information as possible including:
  - A description of the issue
  - The date of product acceptance
  - The total number of containers where the issue has been observed
  - The lot numbers of the affected containers
  - Was product already applied? If so, how much?