

Quality Ingredients
Australian Made
Family Owned



FERTILIZERS

IBC Handling Guidelines 2022/2023



SLTEC® Fertilizers provides a wide range of liquid fertilizer products in 20 L, 220 L, and 1000 L IBC containers.

This guideline provides a summary of SLTEC®'s transport, storage and handling standards and policies.

sltec.com.au

SLTEC®'s IBC Return Policy

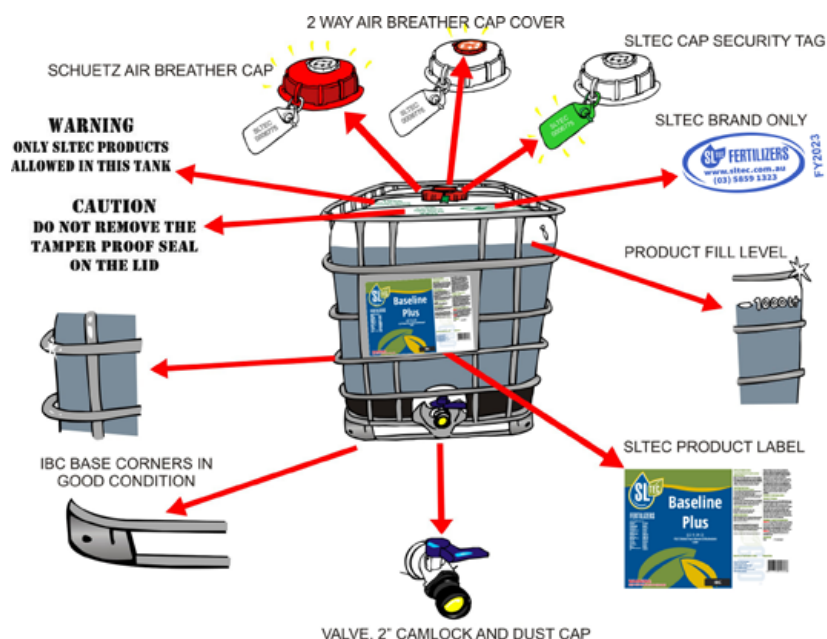
- Definition: IBC stands for Intermediate Bulk Container.
- Sustainable Liquid Technology Pty Ltd (SLTEC®) provides their product range in a number of pack sizes including 20 L, 220 L, 1000 L IBCs and bulk.
- A deposit of \$250 / 1,000 L IBC will be charged with each invoice.
- IBC's must be returned within 6 months from date of dispatch from a SLTEC® depot to receive the deposit credit. Failure to return the IBC's within 6 months from date of dispatch from a SLTEC® Depot will void any claim for a deposit credit.
- This deposit will be returned as an account credit upon the return of the IBC to a SLTEC® Depot with the security tag and key fittings in place within the 6 months from dispatch.
- The freight arrangements associated with transporting IBCs from dealer depots or farm properties to SLTEC® depots (Tongala VIC or Devonport TAS) and any associated freight charges remain the dealer/farmers responsibility.
- Damaged IBCs will remain the property of the dealer or farmer.
- Where IBCs are returned with parts missing or damaged the following fee structure applies for repairs and fittings;
 - 2 Way Air Vent with Cap - \$35 ex GST
 - Camlock Adapter and Dust Plug - \$25 ex GST
 - Dust Plug only - \$10 ex GST
- Where an IBC has been returned to a SLTEC® depot to receive a deposit credit and it's a credit hasn't been granted, the customer will be notified by SLTEC®'s Customer Service Team. This IBC can be collected by the dealer or farmer for private use within 30 days. Failure to collect the IBC within that time will void any claim to the returned IBC.

Best Practice

SLTEC® is totally committed to ensuring its IBCs are supplied to you in a safe and maintained condition.

Each SLTEC IBC has the following quality assurance features;

- IBC Label indicating the product name, product specifications, date of packaging and date of dispatch
- **WARNING:** Only SLTEC® products allowed in this tank
- **CAUTION:** Do not remove the tamper-proof seal on the lid
- SLTEC® brand and contact details
- Schuetz Air Breather Cap with 2-way air breather
- SLTEC Air Breather Cap Security Tag
- Safety Cage in good condition
- 2" Valve, 2" Camlock Cap with Dust Cap



6 Month Return and Deposit Credit

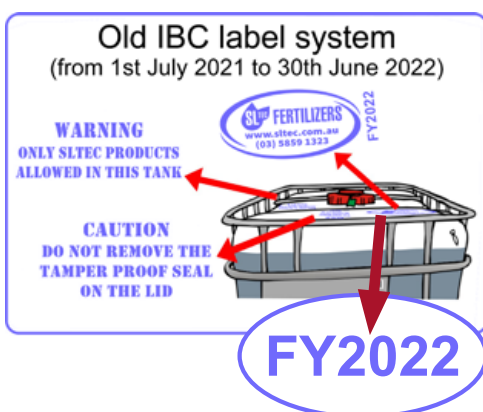
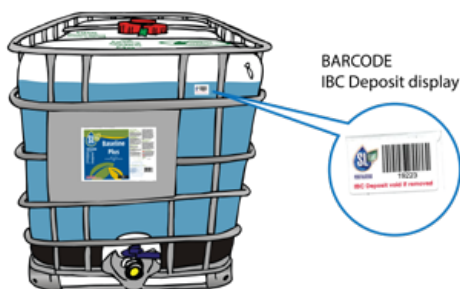
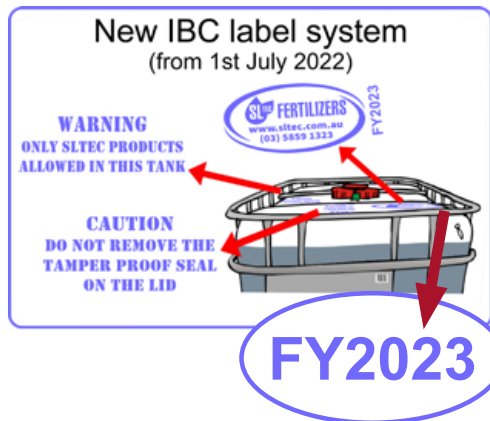
All IBCs need to be returned to us within 6 months from the date of dispatch from a SLTEC® depot or manufacturing facility to validate any deposit credit.

There are many reasons for the 6 months return policy, several of these include;

- IBCs need regular maintenance, returning them within 6 months ensures that the necessary safety maintenance procedures are carried out on time
- IBCs have a limited life and SLTEC® needs to ensure that ageing IBCs are retired appropriately



SLTEC® New, One-Way and Old IBCs



New IBC Return Requirements;

Before you return your IBCs check the following;

- The IBC date of dispatch is within the last 6 months
- The warning and caution messages on the top of the IBC include the symbol, **FY2023**.
- The 2" Camlock Cap and Dust Cap are on the valve at the base of the IBCs (screwed onto the valve)
- The 2-way air breather cap is present and in good condition
- The green tamper-proof safety ziplock tie is present on the 2-way air breather cap
- The safety cage and plastic bottle isn't damaged or rusty

SLTEC® Barcodes on IBCs

All SLTEC IBCs have a unique barcode sticker.

This barcode is used to record each dispatch and receipt of an IBC to a SLTEC Depot. Barcodes must remain intact for IBCs credits to be valid.

One-Way IBCs

There are some situations where one-way IBCs are dispatched from SLTEC® depots. These IBCs are generally dispatched to remote locations where the return of IBCs isn't practical.

In these cases, the painted details on the top of the IBCs are red.

WARNING: Only SLTEC products allowed in this tank

CAUTION: Do not remove the tamper-proof seal on the lid

Should IBCs with red markings be returned to a SLTEC® depot no deposit credit will be possible as no deposit would have been charged at the time of dispatch.

Old IBCs

Between the 1st of July 2021 and 30th of June 2022, IBCs dispatched from SLTEC depots had FY2022 spray-painted on the lid of each IBC.

For the current year, 1st of July 2022 until 30th of June 2023, IBCs dispatched from SLTEC depots have FY2023 spray-painted on the lid of each IBC.

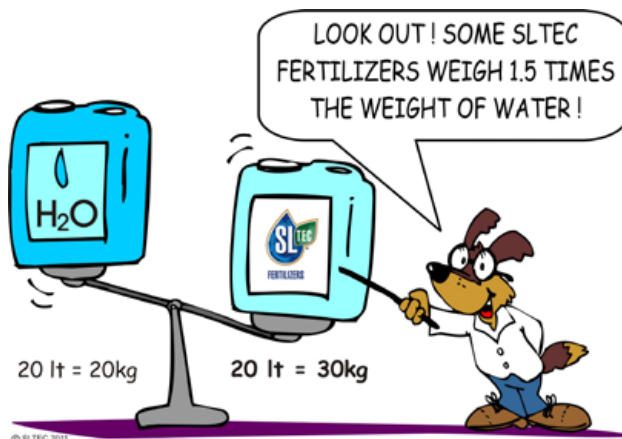
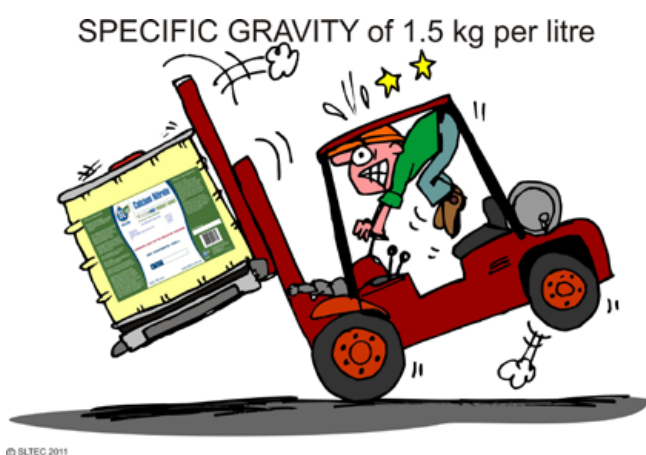
Note that as at the 31st of December 2022, there will be no deposits for these IBCs credited from the FY2022 year. Dealers and farmers are welcome to keep the IBCs.

Safety Considerations with SLTEC® IBCs

Use a Forklift rated to lift 2.5 tonnes capacity safely

SLTEC® Fertilizer products weigh much more than water.

Accordingly, you will need a forklift or tractor with forklift extensions rated at 2.5 tonnes or greater. Using a lifting device that is underrated can pose severe safety risks to all concerned.



Wearing a seat belt when using a forklift is essential.

Safety Protective Equipment when Handling Liquid Fertilizers

The following safety equipment is recommended when transferring or decanting liquid fertilizer from any liquid fertilizer.



Impervious Coat or Apron
Trousers / Pants



Safety Glasses

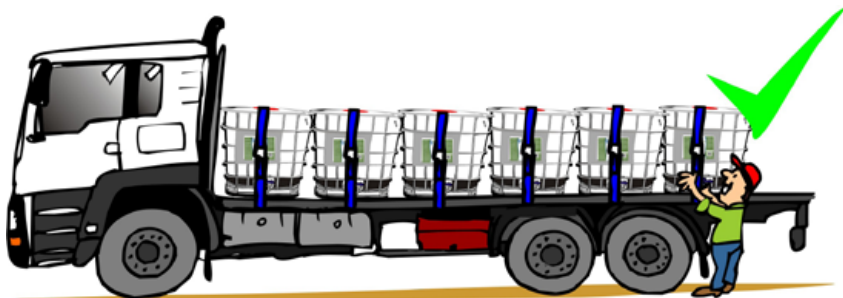


Chemical Resistant
Gloves

© SLTEC 2011

A Summary of Sustainable Practices

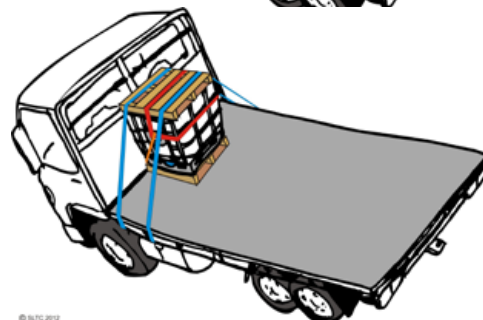
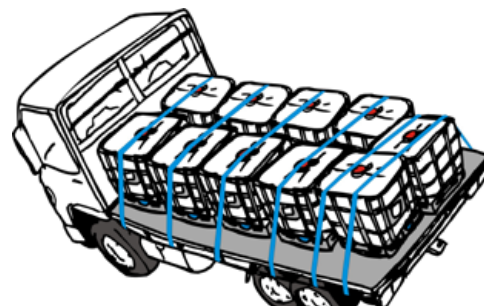
Picking up and Transporting IBCs from SLTEC® Depots



© SLTEC 2011

IBCs are heavy and need to be transported safely. Remember that IBCs of SLTEC® fertilizer can and often do weigh up to 1.5 tonnes (1000 L = 1,500 kg). Hence if you have a truck with a load capacity of 12 tonnes, then you can only carry 8 IBCs.

Not only do you need to have a vehicle rated for the load weight you anticipate picking up from a SLTEC® depot, but you also need to have appropriately rated load restraints. Old ropes and string are unacceptable. Nylon ratchet straps rated at 2.5 tonnes are considered a minimum requirement.



© SLTEC 2012



Unrestrained IBCs will move in transit and must be restrained with fit for purpose load restraint devices.

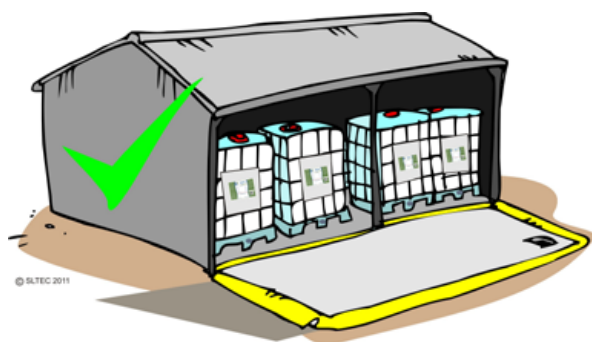
Key Considerations

- SLTEC® and our depot service providers will not load trucks that are deemed to be non-compliant with transport regulations.
- SLTEC® and our depot service providers will only load product within the placarded rating for your proposed transport vehicle.
- Load restraint devices must be fit for purpose and in sound working condition. Where worn straps or ropes are presented loading may be refused.
- IBCs loaded on wooden pallets are less likely to slip on steel truck trays.
- Where a single IBC is transported on a truck with a steel truck tray, a wooden pallet underneath the IBC and a wooden pallet on top of the IBC is recommended along with appropriate 2.5 tonnes load restraint straps.

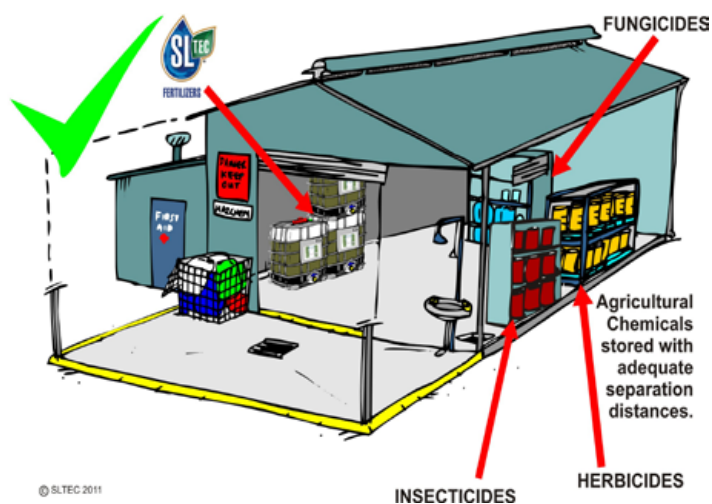
Storing SLTEC Fertilizer IBCs

SLTEC® IBCs should be stored separately to fungicides, herbicides and insecticides.

Another example of a bundled IBC storage facility with a bundled external loading or decanting bay.



© SLTEC 2011



© SLTEC 2011

Filling IBCs from a Bulk Truck

Occasionally SLTEC is asked to fill IBCs at dealer or farmer premises.

Often there are issues and risks associated with providing this service and these include;

- Dealer or Grower IBCs are not properly cleaned, resulting in contamination of the product delivered and complaints.
- IBCs change in shape over time. The same volume of fertilizer can display as varying levels on different IBCs, depending on the condition of the IBC, manufacturer of the IBC, wear and tear etc.
- **Note:** SLTEC accepts no responsibility for the quality of the product once decanted from our delivery trucks into a bulk tank or IBC.
- SLTEC will provide a product sample from our tankers prior to or during pumping into the receiving vessel using a plastic sample bottle complete with batch number and product details. Our driver will also keep a retained sample for our Quality Assurance purposes.

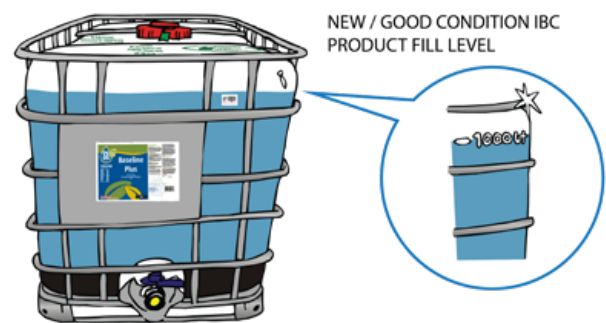
Filling Third-Party IBCs from a Bulk Truck

Please note that SLTEC fills IBCs based on weight, not volume.

SLTEC predominately uses SCHÜTZ Australia IBCs as they are made to international manufacturing standards.

You need to be aware that SCHÜTZ widely states that the 1000 L level on the IBCs is a GUIDE ONLY, and not a legal basis of sale. SCHÜTZ confirm that the actual volume contained in a new IBC will be influenced by the specific gravity of the product and the temperature of the product amongst other factors.

In addition, whilst the mould used to produce the IBC bladders is accurate, cooling temperatures post-moulding can also affect the dimensions of the IBCs. Hence the 1000 L level is nothing more than a guide AT BEST.



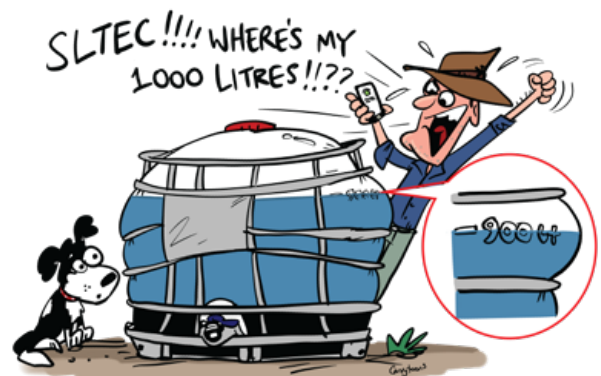
IBC Field Wear and Tear

IBCs and their contents to contract and expand.

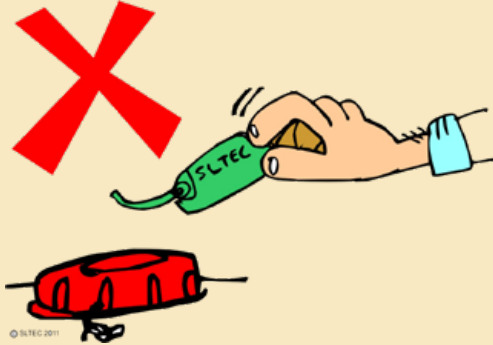



Therefore, while 1000 L of a fertilizer product may have reached the 1000 L level of a brand new SCHÜTZ IBC, with time and age, the exact same volume will often register as a lower level on the IBC due to stretching and fatigue of the IBC.

While SLTEC does offer to fill third-party IBCs for dealer and grower customers, the basis of sale is measured only from a weighbridge docket. Rarely will the volume delivered measure up with the volumetric scale on IBCs (new or old).


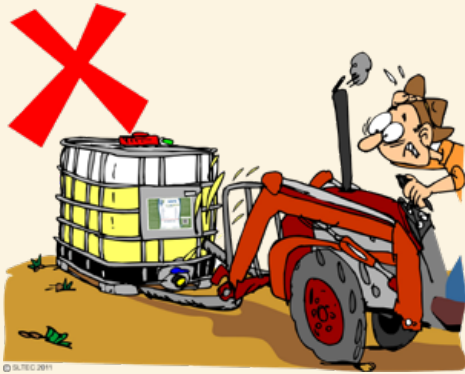


In addition, SLTEC will only guarantee the analysis at the point of dispatch from the delivery truck and not the analysis from within third-party IBCs due to contamination risks and cleaning issues.




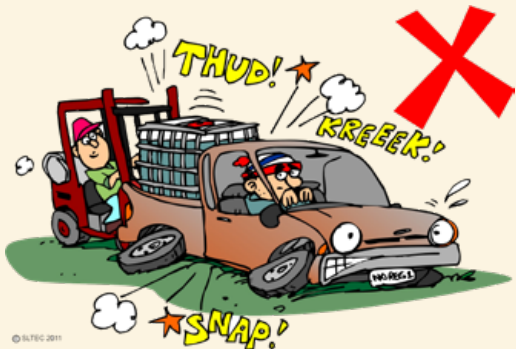

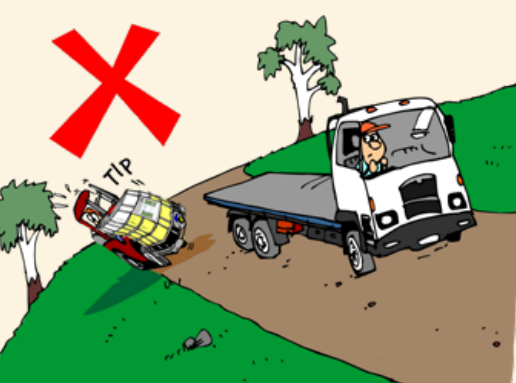
Summary of Inadequate Practices Associated with Handling SLTEC® IBCs

Principle Risk Area	Inadequate Practice Example	Description
Removing SLTEC® Safety Tag		<p>SLTEC® Safety Tag is there for many reasons. It provides you with the assurance that the product contained in the IBC has been filled and sealed by SLTEC®'s professional team and provides you confidence that it complies with our stringent quality assurance procedures. Never remove the safety tag as removal voids any IBC credit return.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> • Leave the Safety Tag on the 2 way Air Breather Cap • Receive your deposit back!
Removing the Cap		<p>The Schutz Cap must not be removed under any circumstances.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> • Leave the cap on the IBC and if you want an IBC for other purposes, buy one!
Removing the 2 Way Air Breather Cap		<p>Removing the air breather on top of the Schultz cap contravenes a breach in SLTEC®'s IBC security procedures and voids any deposit credit return.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> • Leave the air vent in place – do not touch.
Top Filling IBCs with Any Product		<p>SLTEC® IBCs can only be filled and maintained by SLTEC® staff. Any attempts to use the IBC to mix or store other products is completely unacceptable and will void any deposit credit return.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> • If further mixing is required of SLTEC® fertilizer products with other additives use an external mixing tank system


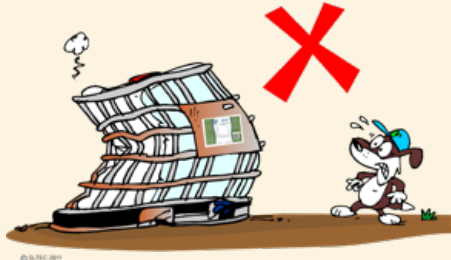


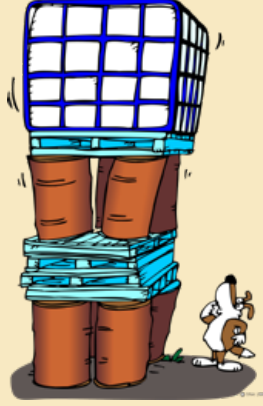
Summary of Inadequate Practices Associated with Handling SLTEC® IBCs

Principle Risk Area	Inadequate Practice Example	Description
Bottom Filling IBCs with Any Product		<p>Bottom filling IBCs is strictly prohibited. Caution also needs to be taken to ensure that product cannot be sucked back (pumped or by gravity) from other storage or mixing systems.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> • Ensure positive isolation by shutting off
Damaging IBCs with Hay or Tractor Forklifts		<p>Often on farms the only practical option for lifting IBCs involves the use of tractors with hydraulic lifting devices. Hay forks should not be used as they are often bent and can be slippery.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> • Use forklift forks • Use a pallet and tractor forks • Drive slowly and safely • Ensure the tractor has at least 3 tonne ballast
Storing Fertilizer and Agricultural Chemicals and Old Drums Beside Irrigation Channels and Waterways		<p>Fertilizer and Chemical drums and bags can contaminate the wider environment if poorly stored and handled.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> • Always store empty IBCs and chemical drums etc in bunded cement contained areas • Return IBCs ASAP to recover deposit credit!
Storing Chemical Drums and Bags on IBCs		<p>Storing chemical drums and other products on IBCs may damage the IBC and potentially contaminate the IBC.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> • Store SLTEC® fertilizer IBCs in a bunded area away from other chemicals and products.

Summary of Inadequate Practices Associated with Handling SLTEC® IBCs

Principle Risk Area	Inadequate Practice Example	Description
Children Playing Around Fertilizer Storages		<p>Fertilizers can be corrosive and could cause harm to children if eyes are impacted or if product is ingested.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> Store SLTEC® Fertilizers in areas where children are prevented from entering.
Loading IBCs into Vehicles		<p>Some vehicles were never meant to carry SLTEC® IBCs.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> Ensure you arrive with a well maintained, roadworthy vehicle fit and rated to carry liquid fertilizers. Vehicles that are not considered fit for safe transport of SLTEC® fertilizers will not be loaded.
Transporting IBCs Without Appropriately Rated Load Restraint Devices		<p>SLTEC® Fertilizer IBCs are heavy and must be safely restrained in a manner compliant with all legal requirements. Worn ropes are considered inadequate.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> Use 2.5 tonne Nylon Ratchet Straps Keep in mind that IBCs can weight more than 1.5 tonnes each and check the product's specific gravity to restrain adequately.
Unloading IBCs on Undulating Ground or on Non Sealed Surfaces		<p>Forklifts are not all terrain vehicles and they must only ever be operated on flat terrain with compacted gravel hard strand traffic surfaces.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> Ensure unloading areas are flat and either cement, bitumen or compacted hardstand areas

Summary of Inadequate Practices Associated with Handling SLTEC® IBCs

Principle Risk Area	Inadequate Practice Example	Description
Imploding IBCS		<p>IBCs occasionally implode if the 2 way air breather vent is partially blocked or if a large suction pump is used to suck the fertilizer from the IBCS.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> • Check that the pump isn't drawing liquid to quickly. • Check that the cap is venting, you may need to tap the top of the cap to release the air vent and allow airflow.
Crushed and Damaged IBCS		<p>IBCs end up like this if they are crushed or dropped during unloading or on farm use. SLTEC® doesn't offer deposit credits for damaged IBCs.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> • IBCs need to be returned to SLTEC® in the SAME condition as they are received by you.
Heroes and Back Strain		<p>1,000 L Intermediate Bulk Containers (IBCs or shuttles) were designed in such a way as to detract people from manual handling them. Despite these efforts people still attempt the impossible and pay the consequences.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> • Only EVER use forklifts and approved handling equipment to move, load, unload chemical drums >20 L.
Storing IBCs in Mud or on Unsealed Areas		<p>Storing IBCs on muddy areas increase risks of damage to the IBC and loss of product.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> • SLTEC® IBCs are heavy and need to be stored on compacted gravel, hard stand, cement or bitumen areas.
IBCs stored on Drums for Decanting		<p>Raising IBCs with pallets and drums to enable gravity decanting presents substantial safety risks.</p> <p>Action/Alternative;</p> <ul style="list-style-type: none"> • SLTEC® IBCs are heavy and need to be stored on a purpose built steel frame if decanting at height is required. • Best practice alternative involves storing the IBC at ground level in a bunded area and pumping the SLTEC® fertilizer into the irrigation or spray vat system with a positive displacement pump. A simple Onga or Davey pool pump can often suffice to transfer fertilizer (Note: ensure the pump can operate at higher pressures than any mainline you are intending to inject into. Consult your irrigation pump specialist or SLTEC® for further assistance).

Fluid Fertilizer Storage Systems

The team at SLTEC® have conducted extensive research into storage and handling systems and can assist you in designing and implementing your liquid nutritional program.

Well designed fluid fertiliser storage and injection systems are essential to ensuring your fluid inputs are effectively utilised, to maintain your workforce safety, and to minimise environmental impacts.

SLTEC® Fluid Fertiliser Tanks

Free Standing 32,000 L Tank

Poly Tank complete with:

- Manhole & safety lid
- Banjo fertiliser resistant fittings
- 3" camlock infill / outlet and air vent assemblies
- Stainless steel sight gauge assembly
- Bottom sump & 1" drain valve enabling 100% drainage
- Strong poly base to support and fittings

[Tank available for purchase or rental.](#)



Free Standing 10,000 L Tank

Poly Tank complete with:

- Manhole & safety lid
- Banjo fertiliser resistant fittings
- Sight gauge 3/4"
- Tank height is designed to fit under Centre Pivot centre

[Tank available for purchase only.](#)



Header Tanks for Liquid Run Fertiliser

- Made from a recycled 220 L drum
- Stainless steel float assembly with poly ball float
- 1" fertiliser resistant camlock fittings with hose supplied

[Sale only, or ask for blueprint to make your own.](#)





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Organisation



FERTCARE®

**Please contact SLTEC® for
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