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GUIDE FOR EMPTIERS

WHAT IS RCRA EMPTY?

Defined by USEPA Regulations (40 CFR 261.7)
"Empty" definition is different for Bulk containers (IBCs or totes) and non-Bulk containers (drums and pails)

USEPA defines an empty bulk container in 40 CFR 261.7:

All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and

- no more than one inch of residue remain on the bottom of the container;
  or
- no more than **0.3 %** by weight of the total capacity of the container remains in the bottom

USEPA defines an empty non-bulk container in 40 CFR 261.7:

All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and

- no more than one inch of residue remain on the bottom of the container;
  or
- no more than **3 %** by weight of the total capacity of the container remains in the bottom

NOTE: The only difference in the "empty" definition for bulk vs. nonbulk is the maximum weight percentage

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WHAT IS A RCRA EMPTY IBC?

Regulation	What it Means	Example
All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating,	At a minimum, an IBC equipped with a valve must be emptied such that no liquid discharges from the valve when it is completely open. A liquid that runs like water will empty from the valve to leave only a small pool of liquid.	
AND	In addition to this requirement, the container must be emptied to meet one of the amounts represented below:	
- no more than one inch of residue remain on the bottom of the container;	For thicker (more viscous) materials, such as adhesives, paints or resins, up to an inch of material at the bottom may remain. The bottom of a composite IBC bottle is not flat – but an inch of material is about 8 gallons.	
OR		
no more than **0.3 %** by weight of the total capacity of the container remains in the bottom	Assuming the density of water, this is 0.825 gallons, or about 3 quarts of liquid.	

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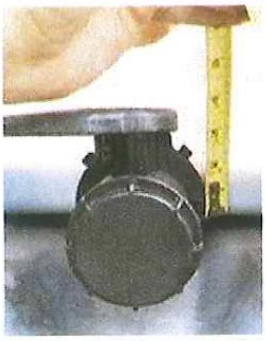
PROPER EMPTYING OF IBCs: SUMMARY

Empty as much as possible through valve, and if possible by pumping, pouring or aspirating. For chemicals that flow like water the tote should look like the photos below.

Empty container amount for any material that flows like water

For thicker materials, then make sure there is never more than an inch of material left in the bottom.

Maximum residue amount for thick materials



MAUSER Packaging Solutions	Container Acceptance Policy

General Acceptance Criteria

All used containers sent to MPS must conform to the following standards per applicable State and Federal regulations:[1]

- All closures (plugs, covers, closing rings, IBC caps, etc.) must be in place and secured in the same manner as if the container was being shipped full of product.
- Original content labels showing product name, manufacturer and associated health hazards must be intact and legible.
- All containers must be properly emptied:
    1. Containers must be as empty as possible using normal emptying methods (pouring, pumping or aspirating) ***and:***
        a. Non-bulk containers (under 119 gallons) can contain no more than one inch (or 3% by weight of the total capacity of the container) of solid (non-pourable) residue.
        b. Bulk containers (over 119 gallons) can contain no more than one inch (or .3% by weight of the total capacity of the container) of solid (non-pourable) residue.
    2. Used containers processed in California must be empty as defined by California regulations:[2]
        a. No material can be poured or drained from the container when it is held in any orientation (e.g., tilted, inverted, etc.).
        b. If the material is not pourable, no residues can remain in or on the container that can feasibly be removed by physical methods (excluding rinsing).

Product Review and Approval

- GENERAL MATERIAL CLASSES
    - Any drum or IBC generator new to the MPS system that operates in SIC Codes 28XX and 29XX must provide MPS with Safety Data Sheets (SDS) for all DOT hazardous materials they wish to ship to an MPS reconditioning facility.
- SPECIAL MATERIAL CLASSES
    - MPS does not accept residue types listed in Appendix A.
    - Containers that previously held materials listed in Appendix B must be triple rinsed with a “triple rinse” label affixed to each container unless the MPS receiving facility has provided a specific exemption.
    - DOT Hazard Class 5.1 products must be drip-dry but do not have to be triple rinsed.
    - DOT Hazard Class 5.2 products must be drip dry and are accepted only at the locations in Appendix C.

Non-Conforming Containers

Containers delivered to an MPS facility that are found upon inspection to be non-conforming to this policy will not be processed. Non-conforming containers (NCC) will be quarantined until such time as the generator arranges removal from the MPS site at their expense. All NCC will be removed within 10 business days of notification.

Full Trailer Rejection

If 8 or more non-compliant containers are found amongst the first 16 containers removed from the truck, the entire load will be rejected, and all containers reloaded. In this event, the load will be diverted to a destination of the Customer or Generator’s choice and Customer or Generator will be responsible for all freight costs, both incoming and the return freight.

[1] 40 CFR 261.7; 49 CFR 173.29(a); 40 CFR 261.33(e)
[2] 22 CCR 66261.7

Appendix A: Products Never Accepted By MPS

Acutely hazardous residues as defined by 40 CFR 261.33 “The RCRA P List”
DOT Class 1 and Other Explosive Materials
DOT Class 2 and Other Gaseous Materials
DOT Class 4.1 and Other Flammable Solids
DOT Class 4.2 and Other Spontaneously Combustible Materials
DOT Class 4.3 and Other Water-Reactive Materials
DOT Class 6.2 and Other Biological or Infectious Materials
DOT Class 7 and Other Radioactive Materials
Hydrogen-Bonded Silicone Compounds not in compliance with Appendix D – SiH Approval Criteria
Mercaptans, Pyridine and other extremely high odor compounds
PCBs
Dioxin-Bearing Waste
Hydrofluoric Acid
Hydrofluorosilicic Acid
Fluorisilicic Acid
Malathion/Parathion
Mercury/Lead-bearing materials
Sodium/Potassium Permanganate

Appendix B: Products Accepted With Pre-Approval And/Or Triple-Rinse

- Acids of concentrations greater than 50%
- DOT Class 5.1 and other Oxidizers
- DOT Class 5.2 and other Organic Materials
- DOT Class 6.1 PG I & II
- FIFRA Regulated Materials
- Halogenated Organic Compounds
- Poisons: Class B
- Poisons: WHMIS (Canada)
- Silicones other than Hydrogen-Bonded Silicones
- Acrylonitrile
- Ammonia Perchlorate
- Ammonium Bisulfite
- Ammonium Fluoride
- Aqua Ammonia
- Benzene
- Butylacrylate
- Dimethyl cyclohexylamine
- Formaldehyde
- Formic Acid
- Hydrogen Chloride
- Perchloric Acid
- Sodium Bisulfide
- Sodium Perchlorate
- Triethylamine

- ***Preapproved exemptions are listed in Appendix C***

Please note that certain MPS facilities may restrict the acceptance of additional materials due to high odor or other hazardous properties that conflict with their local operating circumstances.

Appendix C: Exemption List

Product	Facilities Exempt From Triple-Rinse Stipulation	Exemption Criteria
DOT Class 5.1	All facilities except Clarkston (Reco IBC), Chillicothe (Reco IBC), San Bernardino (Reco IBC), Seattle (Reco Steel)	Container must meet "Drip-Dry" standard
DOT Class 5.2	Charlotte (Reco IBC), Chicago (Reco IBC), Cincinnati (Reco IBCy), Cleveland (Reco IBC), Hutchins (Reco IBC), Kemp (Reco IBC), North Wales (Reco IBC)	Container must meet "Drip-Dry Standard
Acids > 50%	Camden (Reco IBC), North Wales (Reco IBC), Charlotte (Reco IBC), Hastings (Reco IBC), Cannon Falls (Reco IBC), Cleveland (Reco IBC), Delphi (Reco IBC), Cincinnati (Reco IBC), St Louis (Reco IBC), Chicago (Reco IBC), Midland (Reco IBC), Kemp (Reco IBC), Houston (Reco IBC)	None
Agricultural Products not otherwise referenced in Appendix A or B:	Delphi (Reco IBC), Webster City (Reco IBC),	None

Appendix D: SiH Approval Criteria

Hydrogen-Bonded Silicon Compounds (SiH) are reactive under certain conditions and care is required when handling these materials. These hydrogen functional silicon compounds include some silanes, siloxanes and silicones, such as the methyl hydrogen polysiloxanes, and come in many forms, such as emulsions, fluids, elastomers and resins.

Any material containing SiH must be specifically reviewed and approved by Corporate EHS and Divisional leadership. Acceptable materials in this category require less than 50 ppb SiH and must not be at risk for generating hydrogen gas in explosive concentrations when exposed to water, or alkaline washes.

MPS maintains a list of approved SiH/silicone materials (IPS/TBL-ENV-003).

Date	Revision	Authorization
2022-01-14	Updated list of materials to include Fluorosilicic and Hydrofluorosilicic Acid	Bryant McCracken
2021-07-07	Updated list of materials, removed “duplicate” entries and restructured to increase readability	Bryant McCracken
2021-06-08	Updated Appendix C to reflect operational changes and improved appendices formatting.	Ed Konyen
2021-05-14	Added to Exemption List	Bryant McCracken
2021-04-08	Updated list of materials, added Appendix D SIH material references, removed isocyanates from Appendix B and document reference numbers.	Bryant McCracken
2021-03-12	Original Release	Kimberly Miller