

## Technical Data Sheet

# Plastic Pails, Lids, Drums, and Jerricans

Doc No. ETS-CD-1007

Version 3.0

Issued: January 2015

### Scope:

This data sheet applies to all rigid plastic packaging containers (plastic openhead pails and lids and plastic tighthed drums and jerricans) manufactured by BWAY Corporation via either injection molding or extrusion blow molding manufacturing processes and marketed under the BWAY, NAMPAC, ROPAK, PLASTICAN, and ICL brand names throughout the United States and Canada. Non-standard containers produced by special order at customer request may be exempt from certain statements herein. See the "Exemptions" section at the end of this document for clarification.

### SECTION 1: GENERAL RAW MATERIAL INFORMATION

BWAY Corporation's rigid plastic packaging containers are molded from premium grade high density polyethylene (HDPE) or polypropylene (PP) that meets FDA requirements for food-contact use. These low-cost materials provide superior performance for a wide variety of packaging applications including oils, paints, sealants, janitorial chemicals, pet care products, and foodstuffs.

### Raw Material Properties:

Generic properties of HDPE for Injection Molding Openhead Pails and Lids

Property	Test Method	Value
Density	ASTM D792	.950-.954 gm/cc
Tensile Strength at Yield (@ 2"/min)	ASTM D638	3800-4100 psi
Elongation at Yield (@2"/min)	ASTM D638	6-7%
Flexural Modulus (1% secant)	ASTM D790	150000-185000 psi
Environmental Stress Crack Resistance (100% Igepal)	ASTM D 1693	12-20 hours
Deflection Temperature under Load (66 psi)	ASTM D648	160-165°F
Flash Point		645°F (340°C)

Generic Properties of HDPE for Blow Molding Tighthed Drums and Jerricans

Property	Test Method	Value
Density	ASTM D792	.948-.953 gm/cc
Tensile Strength at Yield (@ 2"/min)	ASTM D638	3600-4200
Elongation at Yield (@2"/min)	ASTM D638	6-7%
Flexural Modulus (1% secant)	ASTM D790	140000-180000 psi
Environmental Stress Crack Resistance (100% Igepal)	ASTM D 1693	>600-1000 hrs
Deflection Temperature under Load (66 psi)	ASTM D648	160-175F
Flash Point		645°F (340°C)

**Generic Properties of PP for Injection Molding Openhead Pails**

Property	Test Method	Value
Density	ASTM D792	.90-.91 gm/cc
Tensile Strength at Yield (@ 2"/min)	ASTM D638	3000-3900 lbf
Elongation at Yield (@2"/min)	ASTM D638	4.5-6.0%
Flexural Modulus (1% secant)	ASTM D790	150000-200000 psi
Environmental Stress Crack Resistance (100% Igepal)	ASTM D 1693	N/A
Deflection Temperature under Load (66 psi)	ASTM D648	170-180F
Flash Point		>734°F (390°C)

**Water Vapor Permeability/Transmission:**

Test Conditions:

Test Gas	Water Vapor	Test Temperature	73.4°F (23.0°C)
Test Gas Concentration	N/A	Carrier Gas	Nitrogen
Test Gas Humidity	100% RH	Carrier Gas Humidity	0% RH

Test Results:

Sample Identification	Water Vapor Transmission Rate (gms/package-day)		
	Sample #1	Sample #2	Sample #3
5-Gal 90-mil HDPE Food-Grade Openhead Pail	0.00159	0.00486	0.00261
5-Gal 75mil PP Food-Grade Openhead Pail	0.0311	0.0197	-
5-Gal 100mil HDPE Food Grade Tighthead Jerrican	0.0161	0.0139	-

Note: Above samples were analyzed with a MOCON Permatran-W 3/33 Water Vapor Permeability Instrument.

**Oxygen Permeability/Transmission:**

Test Conditions:

Test Gas	Oxygen	Test Temperature	73.4°F (23.0°C)
Test Gas Concentration	100% O2	Carrier Gas	98%N2, 2%H2
Test Gas Humidity	0% RH	Carrier Gas Humidity	0% RH
Test Gas Pressure	760mm Hg		

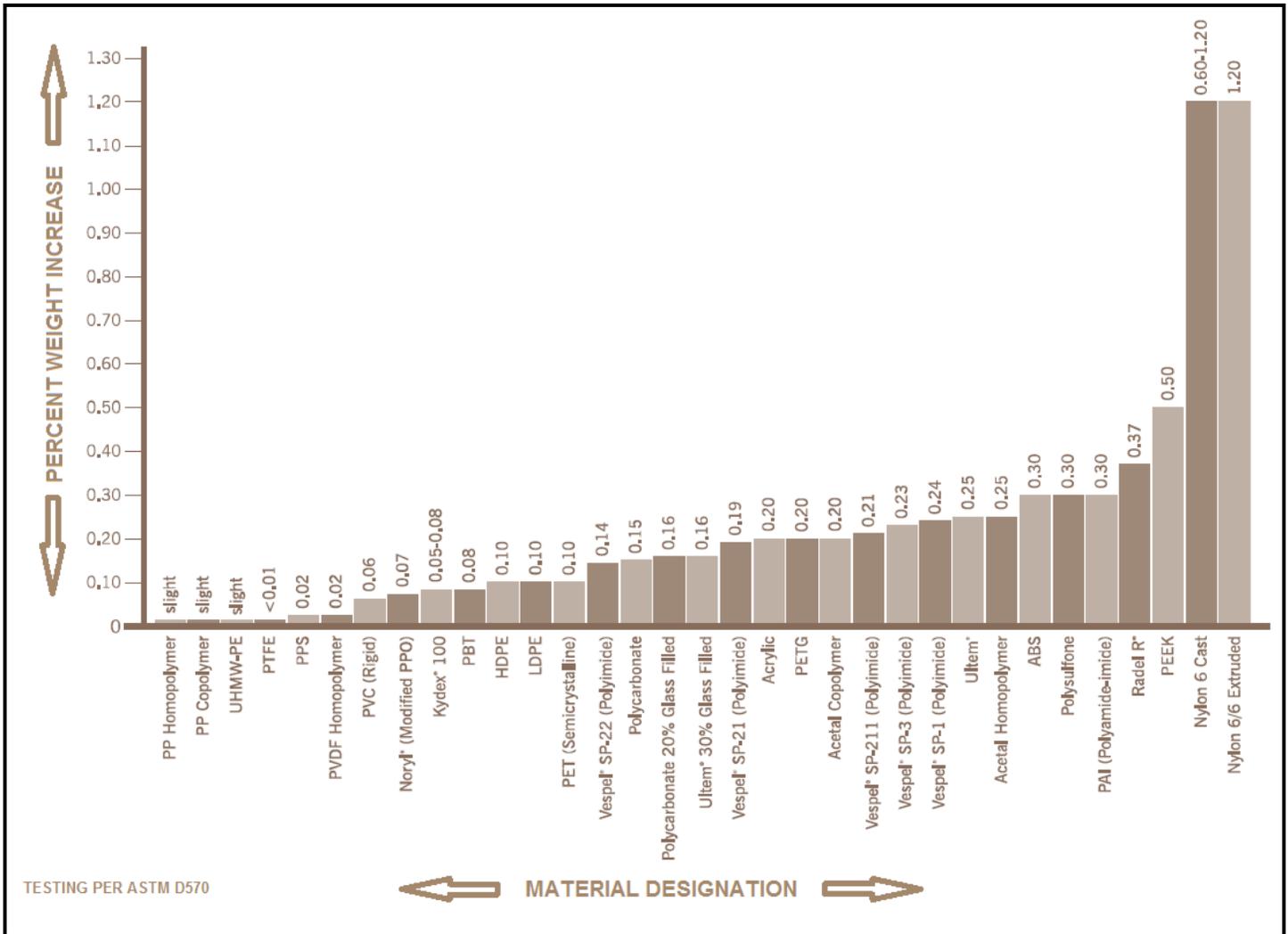
Test Results:

Sample Identification	Oxygen Transmission Rate (cc/package-day)		
	Sample #1	Sample #2	Sample #3
5-Gal 90mil HDPE Food-Grade Openhead Pail	6.12	5.83	6.35
5-Gal 75mil PP Food-Grade Openhead Pail	12.15	15.1	-
5-Gal 100mil HDPE Food Grade Tighthead Jerrican	6.45	9.61	-

Note: Above samples were analyzed on a MOCON Oxtran 2/21T Oxygen Permeability Instrument per ASTM F-1307. The official low end specification for this test module is 7.75 cc/pkg-day. The above results are just below this specification and MOCOM believes that the listed results are accurate.

**Water Absorption by PP and HDPE materials:**

The following graph depicts the relative water absorption of various plastic materials (ref: test procedure per ASTM D570). Generically, the water absorption properties for PP and HDPE materials are quoted as .003% and .08% respectively and, at these low amounts, both are considered to be non-hygroscopic.



**Conflict Minerals Statement (Dodd-Frank Act, Section 1502):**

BWAY Corporation’s rigid plastic packaging containers are in full compliance with the Dodd-Frank Act regarding conflict minerals (identified as tin, tantalum, tungsten, gold and their derivatives). Neither BWAY Corporation nor its suppliers purchase minerals or raw materials from the Democratic Republic of the Congo or any of the adjoining countries.

**SECTION 2: FOOD USE COMPLIANCE**

The materials and components normally used in BWAY Corporation’s rigid plastic packaging containers, including the HDPE and PP plastic resins, multi-component colorants, fittings and rubber gaskets, comply with the pertinent sections of Title 21 of the US Code of Federal Regulations (21 CFR) and are generally recognized as safe for food contact and food packaging. Individual components are certified in writing by their respective suppliers.

The applicable references for the following materials, in the Code of Federal regulations, are as follows:

- 21 CFR 177.1520 for the polyethylene and polypropylene resins
- 21 CFR 177.1520, 21 CFR 177.1640 and 21 CFR 178.3297 for the multi-component colorants and fittings
- 21 CFR 177.2600 for the EPDM and SBR rubber gasketing material
- 21 CFR 175.107 and 21 CFR 178.3710 for the foam-in-place gasketing material

BWAY Corporation further certifies that these materials and components comply in all aspects with food contact package requirements as defined under the following EU Directives; Regulation EC 1935/2004, Regulation EU 10/2011 and amending Regulations EU 1183/2012, EU1282/2011, Regulation EU 321/2011 and Regulation EU 284/2011 ; and that its rigid plastic packaging containers are manufactured using Good Manufacturing Practices (GMP) as outlined in Regulation 2023/2006 and its amendment Regulation 282/2008. BWAY Corporation maintains a database of material supplier documents in support of this certification, but does not currently conduct an active testing program for chemical migration from its finished containers.

**Kosher/Halal Statement:**

The raw materials and components that BWAY Corporation uses to manufacture rigid plastic packaging containers are petroleum-based in nature and contain no animal-based products or by-products.

**Allergen Statement:**

Rigid plastic packaging containers, and components used therein, manufactured by BWAY Corporation, contain no known allergens or derivatives thereof. This statement covers all plastic molding resins, gasketing materials, and printing inks used for container manufacturing at BWAY Corporation. Specifically, our products and processes, and those of our raw material suppliers, do not contain or come in contact with any of the following allergens:

- Peanuts (including peanut butter or peanut flour)
- Tree Nuts (including almond, Brazil, cashew hazelnut, macadamia, pecan, pine, pistachio or walnut)
- Milk (including butter, casein, cheese, curds, whey, cream, custard, pudding, sodium caseinate, sour cream or yogurt)
- Eggs (including mayonnaise, meringue or egg whites)
- Wheat/Gluten (including flour, bran, cereal extract, cracker meal, farina, graham flour, barley and malt, wheat germ, wheat gluten, wheat starch, semolina, rye or oats)
- Soy (including miso and tofu – but not soy oil)
- Fish
- Shellfish (shrimp, crab, lobster, oyster, clam, scallops or crayfish)
- Sulfites
- Food Colors
- Latex

**NSF (National Sanitation Foundation) Certification:**

NSF International is an organization that develops sanitation standards and food safety requirements . The organization is comprised of seven separate divisions which help draft industry and government standards and provide training, testing, and certification to those standards.

BWAY's rigid plastic packaging containers are made from materials approved for food contact use and are manufactured following Good Manufacturing Practices (GMP). However, there are presently no regulatory requirements for NSF certification of our containers and we do not currently carry voluntary certification.

### SECTION 3: HAZMAT SHIPPING CONTAINERS

BWAY Corporation does offer containers that are certified for the shipment of materials determined hazardous by the Department of Transportation. These containers meet the United Nations recommendations for hazmat shipping and are equally recognized for shipment between and within UN member countries. The containers are supplied pre-embossed with the UN certification markings and are available in openhead, drum, and jerrican body styles.

#### **UN-Rated Openhead Containers:**

BWAY's round plastic openhead pails are available in UN-liquid rated versions from 3.5 gallons to 20 liters with several fitment options and are certified to 1H2/Y1.5/30 (1H2/Y1.5/50 by special order). UN-solid rated versions are available from 2.0 gallons to 7.0 gallons with corresponding ratings from 1H2/Y7.5/S to 1H2/Y43/S. Screw top and lever lock openhead drums are available up to 15 gallons with UN-solids ratings up to 1H2/Y90/S (style/fitting dependent). UN-solids rated square openhead pails are available in three sizes; 2.0G, 3.3G and 4.0G; with ratings of 3H2/Z6.0/S, 3H2/Z8.0/S and 3H2/Z9.4/S respectively.

#### **UN-Rated Tighthead Drums:**

BWAY's plastic tighthead drums are available in the continental US in UN-liquid rated versions from 3.5 gallons to 7 gallons and are certified up to 1H1/Y1.8/100 (style/fitting dependent). Larger plastic tighthead drums are available from BWAY's Puerto Rico facility in UN-liquid rated versions from 35 gallons to 60 gallons and are certified to 1H1/Y1.8/100.

#### **UN-Rated Tighthead Jerricans:**

BWAY's plastic tighthead jerricans are available in both integrated handle and swing handle versions with UN-liquid ratings from 2.5 gallons to 7 gallons and are certified up to 3H1/Y1.8/100 (style/fitting dependent).

#### **Shipment of Liquids By Air:**

A minimum container pressure rating of 95kPa is required for shipment of liquids by air. Bway's tighthead drums and jerricans are pressure rated to 100kPa and are suitable for shipment of hazmat liquids by air. Please note that a secondary means of securing the closure is also required for air shipment. Tamper-evident bands, shrink sleeves, and wire ties are all suitable means of secondary closure securement.

#### **Certifications and Test Reports:**

UN-rated packages are recertified on an annual basis. Current certifications and test reports are maintained on BWAY's corporate intranet and copies are available through your local sales representative.

### SECTION 4: TOXINS AND PATHOGENS

#### **REACH Statement:**

Based on our research of the European Parliamentary Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation and Authorization of Chemicals (REACH), BWAY Corporation is not required to register our rigid plastic packaging containers or any components thereof. According to the guidelines, BWAY Corporation is an importer / supplier of "Articles" as defined by REACH, Article 3(3) that states, "Article means an object which during production is given special shape, surface or design which determines its function to a greater degree than its chemical composition."

Further, BWAY's plastic packaging products are considered Polymers as outlined in REACH Guidance for Monomers and Polymers part 3.3 which further states; *"The producer or importer of an article containing a polymeric substance is under no circumstances required to register the polymer, as polymers are exempted from registration."* These products do not contain greater than 0.1% by weight of any Substances of Very High Concern (SVHC) as identified on the latest revision of the European Chemicals Agency (ECHA) Candidate list.

This statement is certified as accurate at the time of publication of this data sheet. BWAY Corporation will continue to monitor for updates or changes to the REACH regulations.

#### **RoHS / RoHS 2 Statement:**

The "Restriction of Hazardous Substances in Electrical and Electronic Equipment" Directive 2011/65/EU, commonly referred to as RoHS 2, and its predecessor, Directive 2002/95/EG (RoHS), both limit the use of certain hazardous substances and heavy metals in electronic equipment and components. Neither regulation is applicable to the rigid plastic packaging containers manufactured by BWAY Corporation and no obligation exists to certify to the RoHS /RoHS 2 requirements. Statements found elsewhere within this section address the tested concentrations of heavy metals and commonly restricted plastic additives found in our containers, which are, in all cases, well below allowable limits.

#### **Bisphenol A Statement:**

Bisphenol A is a chemical compound used in the synthesis of polyesters, polysulfones, and polyether ketones, as an antioxidant in some plasticizers, and as a polymerization inhibitor in PVC. It is a key monomer in the production of polycarbonate plastics and epoxy resins. Polycarbonate plastic, which is clear and nearly shatter-proof, is used to make a variety of common products including baby and water bottles, sports equipment, medical devices, CDs, and household electronics. Epoxy resins are used as coatings on the inside of some food and drinks cans. Bisphenol A has been linked to several health-related issues, including breast cancer, birth defects, and miscarriages.

The HDPE and PP resins and colorants used by BWAY Corporation's manufacturing facilities in the production of molded plastic pails, covers, tighthead containers and bottles are free of Bisphenol A.

#### **CONEG and Toxics in Packaging:**

Consistent with the CONEG initiative, applicable Toxics In Packaging laws, and the legislated requirements of UK Directive 94/62/EC, and based upon written information from our material and component suppliers and test data from our finished molded containers, BWAY Corporation certifies that no lead, cadmium, hexavalent chromium, nor mercury is present in the raw materials nor intentionally added during the manufacture of any of the components of our rigid plastic packaging containers. The sum concentration of these four heavy metals does not exceed 100 parts per million. If any of the four heavy metals are present, they are merely incidental impurities.

#### **Phthalates Statement:**

Phthalates, or phthalate esters, are esters of phthalic acid and are mainly used as plasticizers (substances added to plastics to increase their flexibility, transparency, durability and longevity). Their primary use is the softening of polyvinyl chloride (flexible PVC). Based on information from BWAY Corporation's material and component suppliers, phthalates are not present in the manufacturing processes of any of the materials used in our plastic pails, covers and drums, nor are they added in any form into our manufacturing processes. This statement is further supported by test data from an independent analytical laboratory.

**Tris – nonylphenol - phosphite (TNNP) Statement:**

TNNP is a phosphite-based antioxidant that exhibits high hydrolysis resistance and is primarily used as a UV stabilizer for white and light-colored products such as cement and hot melts. In the past, this AO has been used to stabilize ABS, polycarbonates, HIPS, PVC, polystyrene and including some polyolefins. Nowadays, the latter group of resins (PP, HDPE & LDPE) have migrated to more cost-effective phenolic-based AO packages as stabilizers.

TNNP is a member of a family of organic compounds known as nonylphenols. Nonylphenols have been found to persist in aquatic environments and are bioaccumulative. They are considered endocrine disruptors and have shown to have estrogenic effects on the body. Nonylphenol exposure has been associated with breast cancer and appears to promote the proliferation of cancer cells. Primary exposure in humans has been through the consumption of contaminated seafood and the migration of the compound from food-contact packaging, although several independent studies have deemed the risk from the latter to be minimal.

BWAY Corporation does not intentionally compound TNNP into the raw materials used in our rigid plastic packaging containers. Further, statements and data sheets from our prime food-grade HDPE and PP resin suppliers confirm that TNNP is not added into the plastic resins during their polymerization and compounding processes. BWAY Corporation does not currently test for the presence of TNNP in raw material or finished containers.

**Chlorine or Chlorinated Products:**

BWAY Corporation certifies that no chlorine or chlorinated products were intentionally introduced at any point in our manufacturing processes.

**PFOS/PFOA Statement:**

PFOS (perfluorooctane sulfonate) and PFOA (perfluorooctanoic acid) are fully fluorinated, organic compounds that have found a variety of uses in water-repellent finishes, waterproof membranes, non-stick cookware, and stain-release treatments for carpeting.

PFOS and PFOA are both considered toxic and PFOA has been identified by preliminary government-risk assessment as a “likely carcinogen.” Both chemicals are persistent in the environment, meaning they do not break down or “go away.” Scientific reports indicate increasing levels of these chemicals accumulating in the environment, in animals and in humans around the globe. The European Union has banned PFOS and is considering similar action with PFOA. In the United States, the Environmental Protection Agency (EPA) has initiated a voluntary industry phase-out of PFOA, whereby the major global fluorochemical companies have agreed to eliminate PFOA by 2015.

Neither perfluorooctane sulfonate (PFOS) or perfluorooctanoic acid (PFOA) are present in any of our raw materials nor are they introduced during the manufacture of rigid plastic packaging containers at BWAY Corporation.

**Melamine Statement:**

Melamine is an organic compound that is often combined with formaldehyde to produce melamine resin, a synthetic polymer that is fire resistant and heat tolerant. The resin’s uses include whiteboards, floor tiles, kitchenware, fire retardant fabrics and commercial filters. High level exposure to malamine can cause urinary tract problems, cancer, and reproductive damage.

Based on written statement letters on file from our suppliers, melamine is not used in the formulation or manufacture of any of the raw materials used in BWAY’s rigid plastic packaging containers nor is it introduced at any point in our manufacturing processes.

**BSE/TSE Statement:**

Bovine Spongiform Encephalopathy and Transmissible Spongiform Encephalopathy, also known as prion diseases, are a group of progressive conditions (encephalopathies) that affect the brain and nervous system of many animals, including

humans. The disorders cause impairment of brain function, including memory changes, personality changes and problems with movement that worsen over time. Prions cannot be transmitted through the air or through touching or most other forms of casual contact. However, they may be transmitted through contact with infected tissue, body fluids, or contaminated medical instruments. Normal sterilization procedures such as boiling or irradiating materials fail to render prions non-infective.

The materials used in BWAY Corporation's rigid plastic packaging containers are petroleum-based in nature and do not contain any animal-based products or by-products that could potentially transmit BSE or TSE infections.

#### **Stearates:**

Stearates are salts or esters of stearic acid and include calcium stearate, zinc stearate, and magnesium stearate, among others. They are often used as dry lubricants in pharmaceuticals and foodstuffs to prevent adhesion to processing machinery. Magnesium stearate is sometimes compounded into ABS and SAN polymers as a flow enhancer/release agent.

There does not appear to be any hard evidence that consumption of stearates in small doses, such as those used in the manufacture of candies and pharmaceuticals, is significantly harmful to humans. In large dose studies conducted on rats, stearate consumption has been linked to urinary stones, calcium deposits in the urinary tract, and general weakening of the immune system. Stearate dust, as with most chemical powders, does pose respiratory and flammability risks.

BWAY does not use stearates as release agents anywhere in our manufacturing processes nor are stearates used in the compounding of our raw materials.

#### **Nanomaterials:**

A "nanomaterial" is defined as any intentionally engineered material that has one or more dimensions of the order of 100 nm or less or is composed of discrete functional parts, either internally or at the surface, many of which have one or more dimensions of the order of 100 nm or less, including structures, agglomerates or aggregates, which may have a size above the order of 100 nm but retain properties that are characteristic to the nanoscale. Properties that are characteristic to the nanoscale include:

- (i) those related to the large specific surface area of the materials considered and/or
- (ii) specific physico-chemical properties.

None of the raw materials used in the manufacture of rigid plastic containers at BWAY Corporation are based upon, or intentionally compounded with, nanomaterials nor do we incorporate nanomaterials or nanocoatings at any point during the manufacturing process.

## **SECTION 5: MISCELLANEOUS**

#### **Minimum Container Performance:**

All of BWAY's standard lines of rigid plastic packaging containers are designed and tested to meet the intent of Item 258 of the National Motor Freight Classification (NMFC) and Rule 40 of the Uniform Freight Classification (UFC) as a minimum. This statement may not apply to custom or single-purpose containers.

#### **Bioterrorism Preparedness and Response Act :**

BWAY Corporation is aware of the Public Health and Bioterrorism Preparedness and Response Act ("Bioterrorism ACT") of 2002 and the related FDA interim final rules on facility registration and prior notice published in October 2003.

BWAY Corporation is strictly a manufacturer of rigid plastic packaging containers and does not manufacture, package, distribute or store food or food-related products. Therefore, we have no registration responsibility under the aforementioned act.

**Child Warning Label Requirements:**

The Child Warning Label (CWL) indicating the potential for a small child to drown in a partially filled openhead pail is a legal requirement for packages sold in the State of California on pails with rated volumes of four to six gallons inclusive and has been adopted as a voluntary US standard for pails in this same size range by the pail manufacturers at large. It is not required for pails outside of this size range nor is it required outside of the US. The size, shape and wording of the CWL is controlled by California regulation and is documented in the ASTM Standard F1615.

**DfE Standard Compliance:**

The US EPA's "Design for the Environment Standard for Safer Products" (the DfE Standard), published in 2009 and amended in 2011 and 2012, presents guidelines and options for reducing pollutants in the environment primarily through informed substitution of hazardous chemicals with "green" alternatives. Section 4.2.6 of the DfE Standard specifically addresses the packaging of these chemical products and the use of recycled materials, renewable energy, and clean production technologies in their manufacture.

At BWAY Corporation, we strive to reduce energy consumption in our manufacturing processes and are continually upgrading our manufacturing lines with newer, more energy-efficient equipment. We also offer several material alternatives to meet the 25% recycled content requirements of the EPA "partnership" as discussed in the Standard. The latter are available by special order and, depending upon the nature of the chemistries being packaged, their use may be limited or prohibited by superceding regulations. Please contact your local sales representative for additional information.

**Shelf Life of HDPE and PP Containers**

The shelf life of BWAY's rigid plastic packaging containers will vary depending upon storage conditions. Properly stored containers and container components may be perfectly usable after two or three years; but exposure to UV light, elevated temperatures, heavy top loads, chemical vapors, or other environmental conditions during storage may dramatically reduce the shelf life of the packaging.

BWAY Corporation warrants its containers to be free from dimensional and workmanship defects for a period of six (6) months from date of purchase.

**SECTION 6: CALIFORNIA REGULATIONS**

**California Transparency in Supply Chains Act of 2010 Statement:**

To the best of our knowledge, neither BWAY Corporation nor its subsidiaries or immediate suppliers knowingly uses forced labor in the manufacture of goods or the supply of services in support thereof. Further, BWAY Corporation does not currently conduct business or trade in countries that are known to actively participate in human trafficking.

BWAY Corporation does not currently have in place an active verification program for human trafficking. Specifically, as required disclosure by The Act:

- BWAY Corporation does not currently engage in verification of product supply chains to evaluate and address risks of human trafficking and slavery.

- BWAY Corporation does not currently conduct audits of suppliers to evaluate supplier compliance with company standards for trafficking and slavery in supply chains.
- BWAY Corporation does not require direct suppliers to certify that materials incorporated into the product comply with the laws regarding slavery and human trafficking of the country or countries in which they are doing business.
- BWAY Corporation does not maintain internal accountability standards and procedures for employees or contractors failing to meet company standards regarding slavery and trafficking.
- BWAY Corporation does not currently provide company employees and management, who have direct responsibility for supply chain management, training on human trafficking and slavery, particularly with respect to mitigating risks within the supply chains of products.

#### **California Proposition 65:**

California's "Safe Drinking Water and Toxic Enforcement Act of 1986", also known as Proposition 65, requires businesses to notify Californians about significant amounts of chemicals in the products they purchase, in their homes or workplaces, or that are released into the environment. By providing this information, Proposition 65 enables Californians to make informed decisions about protecting themselves from exposure to these chemicals.

The rigid plastic packaging containers manufactured by BWAY Corporation do not contain any chemicals currently on the Prop 65 list (also known as the "Governor's List") and do not require any consumer warning information.

#### **California RPPC Recycling Regulations (CalRecycle):**

California's Rigid Plastic Packaging Container (RPPC) law was enacted in 1991 as part of an effort to reduce the amount of plastic waste disposed in California landfills and to increase the use of recycled postconsumer plastic. The regulations were revised and are effective January, 2013, with the first compliance year in 2014, to clarify what constitutes a rigid plastic packaging container and to eliminate some unintentional loopholes that resulted from its original wording. The regulations mandate that product manufacturers, or brand owners who sell products held in RPPCs in California meet one of the following packaging compliance options:

- Use 25% post-consumer recycled (PCR) material in the rigid packaging.
- 10% Source Reduction accomplished by:
  - Reducing package weight by 10%, using the same resin.
  - Product concentration, e.g. an increase in the number of laundry loads from 50 to 55.
  - Combination of packaging weight reduction & product concentration.
- Comparison to other similar products sold in the marketplace in similar containers (same size, shape and resin material).
- Corporate Averaging.
- Proof of Refilling or Reusing the package at least 5 times.
- Proof of 45% recycling rate of package or specific resin type in California.

Certain packaging products are exempt from the RPPC regulations, primarily those that are covered under superseding Federal regulations, such as:

- BWAY pails with rated volumes of 5 US gallons and above are exempt, since overage is built into the 5-Gal. pails with the maximum capacity exceeding 5.0-Gallons. Pails exceeding 5.0-Gal. in maximum capacity are exempt from RPPC regulations.
- Pails carrying a UN rating as required for shipping of hazardous materials are exempt from the regulations. This includes BWAY's UN-rated open head pails as well as all of the plastic tight head, jerrican and drum containers manufactured by BWAY.

- Pails purchased as food-grade for packaging of edible materials are exempt from the regulations.
- Pails used for packaging material governed by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) are exempt from the regulations.

All BWAY containers not specifically exempted are required to follow one of the compliance options mentioned above. Additionally, pails with metal handles are no longer exempt, and therefore must also comply with the new regulations.

Here is how the plastic HDPE and PP pails and jerricans that BWAY Corporation produces can help you in complying with the new regulations:

Containers molded with 25% post-consumer recycled content are available from BWAY by special order and can be manufactured from a PCR-Prime resin blend or molded via our proprietary Twinshot process, which sandwiches the recycled material between layers of prime plastic resin. Please contact your BWAY sales representative to discuss options. (Please note: There are color limitations associated with the use of PCR. )

We also offer a variety of options for reducing package weight. These include our STRATUM ribbed pail design, our Diamond Weave Technology design, as well as various thin-walled and polypropylene options. Please discuss these with your BWAY sales representative.

Please refer to CalRecycle’s website for more details on the new revised regulations:  
<http://www.calrecycle.ca.gov/Plastics/RPPC/>

## SECTION 7: ENVIRONMENTAL

### **Recyclability:**

The plastic and metal components of BWAY’s plastic pails, covers, and jerricans are 100% recyclable and are marked with molded-in plastic recycling codes per ASTM D7611, “Coding Plastic Manufactured Articles for Resin Identification”. Plastic container bodies, covers, and handles are made from either high density polyethylene (HDPE, recycle code “2”) or polypropylene (PP, recycle code “5”) and are clearly embossed with one of the recycle symbols shown at right. Metal (wire) handles are zinc plated steel, but are not code marked due to a lack of suitable marking surface.



### **Green Seal Statement:**

BWAY’s rigid plastic packaging HDPE and PP containers are manufactured with the environment in mind. As noted elsewhere in this document, the containers are free from the residual toxic components contained in many other plastic formulations, free from heavy metals, and free from chlorine. They can be made from recycled materials and are 100% recyclable.

Further, BWAY Corporation’s manufacturing facilities strive for waste-free operation and have internal recycling programs for packaging materials and consumables. BWAY operates in an environment of continuous improvement and we are always on the lookout for new ways to reduce waste and energy consumption.

**SECTION 8: EXEMPTIONS**

Non-standard plastic containers produced by special order at customer request may be exempt from certain statements contained herein. Please review the following for exemptions that may apply to the containers you purchase.

**Recycled Material Content:**

Containers molded with post-consumer recycled resin content do not currently meet FDA standards for food contact use or federal requirements for hazmat shipping and are exempt from these specific certifications.

**Non-Standard Additives:**

Non-standard additives, such as color stabilizers, anti-stats, special pigments or fillers, may render the containers unsuitable for food-grade or hazmat shipping use depending upon the composition of the additive and the percentage used. Such additives will be reviewed and certified on a case-by-case basis.

**Hybrid (Plastic/metal) Paint Cans:**

BWAY's line of composite plastic/metal paint cans are made with 90-100% recycled plastic resin and are not certified for food use applications.

**PVC Screw Cap Gaskets:**

BWAY offers a polyvinyl chloride (PVC) gasket option for several of our screw caps. This is a non-standard item available only by special order. Screw caps with PVC gaskets are exempt from the chlorine-free certification and phthalates-free certification and are not approved for food contact use.

**DISCLAIMER**

This document is audited and updated on an annual basis. All statements contained herein are believed to be true and accurate at the time of publication. BWAY Corporation is not responsible for the effects that regulatory changes occurring subsequent to publication may have on the continued validity of these statements.

**Version History:**

Version	Desc. Of Changes	Changed By	Version Date
1.0	Draft release for comment	F. Burney	Jan 2014
2.0	Added Stearates and Nano materials sections, added square pails to hazmat containers, added shelf life statement, updated oxygen/water vapor transmission data, misc. minor wording changes. Added version history. Document released for use.	F. Burney	Apr/May 2014
3.0	Added statements on water absorption, RoHS/RoHS2, TNNP, and the EPA's DfE Standard. Completely revised paragraph on EU food-use compliance. Added disclaimer at end of document.	F. Burney	Jan 2015