Tupperware Distributor/Sales Force Response Document

Word Choices for the Sales force and Customers regarding Tupperware's approach to product quality and safety:

For more than 50 years Tupperware has been one of the most famous and trusted names in housewares and we continue to be because customers know they can rely on our products for quality, design, function and of course safety!

ALL Tupperware® products meet or surpass Federal Government safety standards for food contact applications.

ALL Tupperware® products that are recommended for use in the microwave are, of course, safe in the microwave. Those products that we don't recommend for the microwave are not recommended simply because they could lose their shape or melt when food reaches high temperatures and therefore not be protected under our warranty.

If you have specific questions about the safety of our products or the materials used in them, we are delighted to answer them. The most up to date and complete information is available by calling our Customer Service Center at 1-800-858-7221.

Word Choices to Questions regarding specific product safety seen in the media from Sales Force members and Customers

Q I saw something on TV (or in the newspaper) that said plastic products aren't safe when you put them in the microwave and Tupperware may have mentioned. Is that true?

A. We are aware of the many confusing reports about the use of plastics products. I can assure you that all Tupperware® products meet or surpass Federal Government safety standards for their intended use. Our products that are designed for use in the microwave are designated with usage on the bottom (show if possible) and you can feel comfortable using them.

Q. Well, the program I saw talked about a specific plastic (polycarbonate) can cause health effects. Is that true?

A. There have been are several detailed studies that conclude there are no adverse health effects from use of polycarbonate products . This position has been confirmed by health authorities

Q. Do you use polycarbonate in your products?

A. Yes. We use a number of different plastics in our products, including polycarbonate, to ensure that customers get the best functionality and durability for each of their uses. If you would like an up-to-date list of the materials used in our products, call our Consumer Service Center at 1-800-858-7221 and they will be happy to send that right out to you.

Q. Why can't you give me list right now?

A. We are constantly adding new products to our line and removing old ones. So we sometimes change the manufacturing process or materials for certain products. Since we want you to have the most up to date and complete information, the best source is our Headquarters and you can contact them at 1-800-858-7221.

Word Choices to address specific questions relating to media reports on Case Western Reserve University researcher, Dr. Patricia Hunt's study on Bisphenol A (BPA).

Q. What does the study say?

Dr. Patricia Hunt and colleagues at Case Western Reserve University reported that BPA causes a chromosomal abnormality in female mice (known as **meiotic aneuploidy)**.

Some of the media reports **speculate** that BPA could have an effect on reproduction or development in humans. There is no direct evidence to support this suggestion as Dr. Hunt's experiment did not examine reproduction or development. This fact is noted by the study's authors. Also additional research is needed to determine if their experimental system might provide a sensitive, reliable, and reproducible assay system for the evaluation of reproductive effects. **According to Dr. Hunt, the relevance of the reported results to humans has not been established.**

Q. What do you think about the study?

As noted in the Hunt paper, more research is needed to understand its findings. The study does not show any actual negative health effects, including no reproductive and offspring effects being examined in the study. The authors of the study correctly state that the relevance of their results to human health has not been established.

Q. Are there studies that have examined the reproductive effects of BPA?

Extensive research has already been conducted on whether there are functional reproductive or developmental effects from BPA exposure. That research concluded that BPA does **not** cause reproductive or offspring effects at environmentally relevant doses (within regulated limits set by the EU and FDA)

Q. What are the names of the studies that determine there are no adverse health effects from BPA?

A. There are three key multi-generation studies:

1. Research Triangle Institute – Dr. Rochelle Tyl

A three-generation reproduction and development study on BPA conducted at the Research Triangle Institute under the direction of Dr. Rochelle Tyl, fed parental and three offspring generations of rats a diet containing BPA at levels lower than those tested by Hunt et al. and ranging to levels more than a thousand times higher. There was no evidence of reproductive or developmental effects at any environmentally relevant dose. Additional information on this study is available at http://www.bisphenol-a.org/new/july2news.html

2. Japanese National Institute of Health Sciences

The results of a similar two-generation study commissioned by the Japanese National Institute of Health Sciences fully support the conclusions of the three-generation study.[i]

3. U.S. National Toxicology Program

Likewise, the results of a continuous breeding study in mice, conducted by the U.S. National Toxicology Program, showed no effects on reproduction at a dose approximately 1000 times higher than the highest dose tested by Hunt et al.[ii]

Q. Explain to me why the Hunt study says BPA can cause infertility, miscarriages, or birth defects? Why shouldn't I believe this study?

A. It is important to keep in mind what the study says and what it does not say. What the study looked at was the effect of BPA on the genetics of mice eggs.

The study does:

- Not show any actual health hazard. It only looked at the genetic effects of BPA on mice eggs, and not at whether there were reproductive problems or deformed embryos;
- Not predict actual harm in animals or humans; and
- Not show that the effects seen in mouse eggs are relevant to humans.

There has been a lot of research on BPA; and that research demonstrates that BPA does not cause reproductive problems. The bottom line is when you look at the whole package of BPA studies, you do not see any bad health outcomes.

Q. What do I say to a consumer who asks me about the study?

A. Consumers deserve the facts, not unproven speculation. The weight of scientific evidence shows that there is no basis for health concerns from exposure to BPA. Consumers can continue to choose polycarbonate with confidence that they can be used safely.

Q. Does this change whether polycarbonate baby bottles and food containers are safe?

A. No. You can continue to choose polycarbonate bottles and food containers with confidence in their safe use. The use of polycarbonate plastic in food and beverage applications continues to be authorized for food contact use by the **U.S. Food and Drug Administration**, the **European Commission Scientific Committee on Food**, the **United Kingdom Food Standards Agency**, **the Japanese Ministry for Health, Labor and Welfare** and other regulatory authorities worldwide.

Q. Should I advise customers to throw away worn polycarbonate products?

A. This is a consumer choice. From a health and safety standpoint, there is no reason to unless the products no longer function.

Word Choices to address specific questions relating to Bisphenol-A (BPA).

Q. Is bisphenol-A safe?

A. Over forty years of research and extensive use has established that bisphenol-A (BPA), and bisphenol-A based polycarbonate products, are safe for their intended uses and pose no threat to human health.

Key supporting points

1. BPA is one of the most extensively studied chemicals and the weight of scientific evidence based on numerous comprehensive studies conducted under approved internationally recognized, laboratory procedures and subject to peer review by scientific experts demonstrate that BPA is safe for its intended uses.

2. National and international regulatory authorities including the European Union's Scientific Committee on Food, the United States Food and Drug Administration and the Japanese Ministry of Health, Labor and Welfare have all assessed the scientific and safety data on products made with bisphenol-A and have confirmed they are safe for their intended uses.

3. Tupperware's management takes the health and safety of its consumers very seriously when selecting material for use in the manufacture of Tupperware® products.

4. For more information on the safety of bisphenol-A, you may want to visit the website, www.bisphenol-a.org.

Q. Do low doses of bisphenol-A cause health effects?

A. Extensive, independent research has repeatedly demonstrated that low level exposures to bisphenol-A do not effect the health of laboratory animals.

Key supporting points

1. At least six major studies conducted under approved, internationally recognized, laboratory procedures and subject to peer review by scientific experts found that low-dose exposure to bisphenol A did not cause health effects in laboratory animals.

2. The opinion of the European Commission's Scientific Committee on Toxicity, Ecotoxicity and the Environment (CSTEE) of the Risk Assessment of Bisphenol-A on Human Health (published June 19, 2002) states "a number of high quality studies on the reproductive and developmental effects of bisphenol-A are already available and do not support low-dose effects."

3. National and international regulatory authorities including the European Union's Scientific Committee on Food, the United States Food and Drug Administration and the Japanese Ministry of Health, Labor and Welfare have all assessed the scientific and safety data on products made with bisphenol-A and have confirmed they are safe for their intended uses.

4. Tupperware's management takes the health and safety of its consumers very seriously when selecting material for use in the manufacture of Tupperware® products. Tupperware's polycarbonate food storage and serving containers provide many product features and benefits. Consumers can continue to use them with confidence.

5. For more information on the safety of bisphenol-A, you may want to visit the website, www.bisphenol-a.org.

Q. Is bisphenol-A carcinogenic (does it cause cancer)?

A. Bisphenol-A is not carcinogenic to humans.

Key supporting points

1. A distinguished panel of scientific experts from the US, Canada and Europe conducted a weight-of-evidence assessment of the potential for BPA to cause cancer using the guidelines and criteria established by the International Agency for Research on Cancer and the United States Environmental Protection Agency. It was recently published in the peer-review journal, Regulatory Toxicology and Pharmacology and concluded that BPA lacks the potential to cause cancer and lacks mutogenic or genotoxic activity. The EU Risk Assessment came to similar conclusions.

2. National and international regulatory authorities including the European Union's Scientific Committee on Food, the United States Food and Drug Administration and the Japanese Ministry of Health, Labor and Welfare have all assessed the scientific and safety data on products made with bisphenol-A and have confirmed they are safe for their intended uses.

3. Tupperware's management takes the health and safety of its consumers very seriously when selecting material for use in the manufacture of Tupperware® products. Tupperware's polycarbonate food storage and serving containers provide many product features and benefits. Consumers can continue to use them with confidence.

4. For more information on the safety of bisphenol-A, you may want to visit the website, www.bisphenol-a.org.

Word Choices to address specific questions relating to concerns regarding microwave cooking in plastic containers.

Q. I've heard it is unsafe to microwave food in plastic products. Is this true?

A. Tupperware® products are safe and Tupperware® products designed for microwave use are safe for their intended purpose. Health and safety are top priorities at Tupperware™ and all Tupperware® products meet or surpass Federal government safety standards for food contact applications. Tupperware is careful to specify on its products if they are appropriate for microwave use and further specifies which of those microwave products are appropriate for cooking and which are appropriate for re-heating. All Tupperware™ products designed for use in the microwave are labeled on the bottom of the container and on the seals with the words, "microwave re-heatable" or "microwave cooking," or feature the microwaveable icon of short, wavy lines. If the product bears one of those inscriptions, it has been designed to function safely in the microwave.

Q. Are all Tupperware® products safe to use in the microwave?

A. Only Tupperware® products specifically designed and recommended for use in the microwave should be used in the microwave. Tupperware is careful to specify which products are appropriate for microwave use and further specifies which of those microwave products are appropriate for cooking and which are appropriate for re-heating. Using the appropriate product not only results in optimal performance, but also prevents damage to our products. The high heats generated by foods prepared in a microwave can warp and melt non-microwave safe materials and microwave use would void the warranty. More importantly, this damage poses a safety hazard that could cause accidents and injuries to the user.

Q. There have been stories in the media about the potential health risk associated with using plastic in the microwave. How can consumers be assured that Tupperware® products are safe?

A. Tupperware® products are safe generally, and Tupperware® products designed for microwave use are safe for their intended purpose. All Tupperware® products meet all applicable laws and regulations for product safety in each country where they are sold. The plastic materials, additives and colorants used in the manufacture of Tupperware® food storage, preparation and serving products sold in the United States meet the requirements in the Regulations of the Food and Drug Administration of the United States of America. All colorants used in those products are registered on the French Positive List (Circular Letter No. 176), which is the most stringent in the world, and comply with the requirements of the Council of Europe Committee of Ministers Resolution AP (89) 1.

Q. Are Tupperware® products, not designated for use in the microwave, safe to use in the microwave?

A. Though there are no known health risks, we strongly recommend that you use only Tupperware® products specifically designed for use in the microwave. Tupperware® is careful to specify which products are appropriate for microwave use and further specifies which of those microwave products are appropriate for cooking and which are appropriate for re-heating. The high heats generated by foods prepared in a microwave can warp and melt non-microwave safe materials and microwave use would void the warranty. More importantly, this damage poses a safety hazard that could cause accidents and injuries to the user.

Q. Do materials in Tupperware® products migrate into food when re-heating or cooking in a microwave oven?

A. The safety of plastic for food storage, preparation and serving containers has been confirmed many times by the U.S. Food and Drug Administration (FDA) - the government agency that regulates all products intended for direct and indirect contact with foods and beverages.

Key supporting points

1. Yes. All containers and cookware exhibit migration of materials into foods to some extent. This is seen in porcelain, crystal, aluminum, stainless steel, iron, tin, non-stick coatings and glass, as well as plastic. You may have seen the warnings to avoid using ceramics with glazes containing lead in food contact applications.

2. As you can see, it is not the migration that is the concern, but the type of material and the amount of migration. FDA sets the standard for what's considered an acceptable level of migration – at parts per million and parts per billion. None of our materials, additives or colorants are toxic or carcinogenic and, therefore, none has an adverse health effect in humans. Tupperware® products meet or surpass the safety standards for plastics in food contact applications and the associated migration limits.

Additional information related specifically to microwave cooking

In a 1994 article entitled, *The Hidden Hazards of Microwave Cooking*, the author suggests that the process of microwaving food poses a serious health risk to humans. It claims microwave cooking causes "severe molecular damage" in food and when consumed causes "abnormal" changes in human blood and immune systems. The Q & A above is intended to help provide information only about the safety of Tupperware® microwave products, not microwave cooking.

The following points are intended to inform those who have concerns about the effects of microwave cooking on food and human health with information based on 30 years of study and research.

1. Microwave ovens heat food by oscillating waves of energy through food at a rate of 2450 million times per second. As these waves pass through food, water and fat molecules generate heat caused by the friction produced by the waves. It is this friction that heats the food.

2. Heating baby formula in a microwave oven poses a risk due to the potential for the temperature to exceed an acceptable level for consumption by an infant. Microwaves tend to heat the upper area of the liquid more than the lower area. As a result, there can develop hot spots in the formula. It is recommended that consumers shake the bottle thoroughly and check the temperature before giving it to a child.

3. Glass, paper and plastic are considered to be "transparent" to the microwave energy and cannot generate heat. Thus, the only way plastic containers can become heated is through food-contact. Conventional cooking in an oven happens just the opposite way. The hot air heats everything in the oven, including the container that holds the food.

4. A microwave oven heats food in a more energy efficient manner than conventional cooking. In fact, some methods of conventional cooking can increase the presence of theoretically harmful substances, some of which are known to be mutagenic or even carcinogenic. There is no credible scientific evidence to support the conclusion that cooking in a microwave alters the molecular structure of food cells, thus reducing the nutritional value of food any more than conventional cooking.

5. The Food and Drug Administration, one of the world's most respected regulatory bodies, has conducted research on microwaves to assure that consumers would be safe. For 30 years, microwave ovens have been in use. More than 90% of American households now use microwave cooking to prepare food for their families – keep in mind heating food is widely considered an effective way of eliminating harmful organisms.

End Notes:

[i] "Rat two-generation reproductive toxicity study of bisphenol A", M. Ema, S. Fujii, M. Furukawa, M. Kiguchi, T. Ikka, and A. Harazono, *Reproductive Toxicology* (2001), **15**:505-523.

[ii] "Bisphenol A: Reproduction and Fertility Assessment in CD-1 Mice When Administered in the Feed", NTP Report No. RACB 84080. Information this study is available on the Internet at http://ntp-server.niehs.nih.gov/htdocs/RT-studies/RACB84080.html.