

Bubble Solution for Bubble Toys



Version 2.0

Chemwatch Safety Data Sheet (Conforms to Regulations (EC) No 1907 / 2006, (EC) No 1272 / 2008 (CLP))

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CHEMWATCH REVIEW SDS

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SAFETY DATA SHEET

SECTION 1: Identification of the substance / preparation and of the company / undertaking

1.1. Product Identifier

Product name: Bubble Solution for Bubble Toys
Chemical product name: No data available
Synonyms: No data available
Proper shipping name: No data available
Chemical formula: No data available
Other means of identification: No data available
Index number: No data available
ID number: No data available
CAS number: No data available
REACH registration number: No data available
EC number: Not Available

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Bubble Toys, Plaything
Uses advised against: No data available

1.3. Details of the supplier of the safety data sheet

Registered company name: Hongdu Plastic Product Co., Ltd
Address: Heng Tang District, Tang Xia Town, Dongguan, Guangdong Province, China
Telephone: +86 769 87884322 (Office Hours: 9:00am - 6:00pm)
Fax:
Email: hdsgzpc@163.com
Website:

1.4. Emergency telephone numbers

Association / Organisation: National Poisons Information Service
Other emergency telephone numbers: +44 0844 892 0111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

DSD classification: In case of mixtures, classification has been prepared by following DPD (Directive 1999/45/EC) or CLP (Regulation (EC) No 1272/2008) regulations
DPD classification: •None under normal operating conditions.
CLP classification: According to CLP no hazard category has been assigned

2.2. Label elements

CLP label elements

No data available

Signal word: No data available**Hazard statement(s):**

Supplementary statement(s):	Code	Phrase
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Precautionary statement(s): No data available**DSD / DPD label elements**

No data available

Relevant risk statements are found in section 2.1

Indication(s) of danger: No data available**Safety advice:**

- None under normal operating conditions.

2.3. Other hazards

- No relevant data

SECTION 3: Composition / information on ingredients**3.1. Substances**

See `Composition on ingredients` in section 3.2

3.2. Mixtures

1. CAS No	2. EC No	3. Index No	4. REACH No	%[weight]	Name	Classification according to Directive 1999/45/EC [DPD]	Classification according to (EC) No 1272/2008 [CLP]
1. 7732-18-5				90-99	water		According to CLP no hazard category has been assigned
2. 231-791-2							
2. 231-791-2							
3. 231-791-2							
4. No data available							
1. 4292-10-8				1-4	lauramidopropylbetaine	R52	According to CLP no hazard category has been assigned
2. 224-292-6							
2. 224-292-6							
3. 224-292-6							
4. No data available							
1. 532-32-1				<0.5	sodium benzoate		According to CLP no hazard category has been assigned
2. 208-534-8							
2. 208-534-8							
3. 208-534-8							
4. No data available							

Identification of PBT / vPvB substances / mixtures: No data available

SECTION 4: First aid measures**4.1. Description of first aid measures****General:** No data available**Ingestion:**

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Eye Contact: If this product comes in contact with eyes:

- Wash out immediately with water.
- If irritation continues, seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin Contact: If skin or hair contact occurs:

- Flush skin and hair with running water (and soap if available).

- Seek medical attention in event of irritation.
- Inhalation:**
- If fumes or combustion products are inhaled remove from contaminated area.
 - Other measures are usually unnecessary.

4.2. Most important symptoms and effects, both acute and delayed

Inhaled: The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
Not normally a hazard due to non-volatile nature of product

Ingestion: The material has **NOT** been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

Skin Contact: The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

Eye: Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

Chronic: Practical experience shows that skin contact with the material is capable either of inducing a sensitisation reaction in a substantial number of individuals, and/or of producing a positive response in experimental animals.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility: None known.

5.3. Advice for fire-fighters

Fire Fighting:

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.
- **DO NOT** approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

Fire/Explosion Hazard:

- Non combustible.
- Not considered to be a significant fire risk.
- Expansion or decomposition on heating may lead to violent rupture of containers.
- Decomposes on heating and may produce toxic/ irritating fumes.
- May emit acrid smoke.

May emit corrosive fumes.

SECTION 6: Accidental release measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal Protective Equipment: Gas tight chemical resistant suit.Limit exposure duration to 1 BA set 30 mins.

Minor Spills:

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitable, labelled container for waste disposal.

Major Spills: Moderate hazard.

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- Stop leak if safe to do so.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Neutralise/decontaminate residue.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
- If contamination of drains or waterways occurs, advise emergency services.

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the MSDS

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Safe handling

- Avoid all personal contact, including inhalation.
 - Wear protective clothing when risk of exposure occurs.
 - Use in a well-ventilated area.
 - Avoid contact with moisture.
 - Avoid contact with incompatible materials.
 - When handling, **DO NOT eat, drink or smoke.**
 - Keep containers securely sealed when not in use.
 - Avoid physical damage to containers.
 - Always wash hands with soap and water after handling.
 - Work clothes should be laundered separately. Launder contaminated clothing before re-use.
 - Use good occupational work practice.
 - Observe manufacturer's storing and handling recommendations.
 - Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
- **DO NOT allow clothing wet with material to stay in contact with skin**

Fire and explosion protection

See section 5

Other information

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



+



+



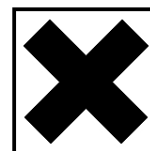
+



+



X



+

+: May be stored together.

O: May be stored together with specific preventions.

X: Must not be stored together.

7.2. Conditions for safe storage, including any incompatibilities

Suitable container:

- Polyethylene or polypropylene container.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

Storage incompatibility: None known

Package Material Incompatibilities: No data available

7.3. Specific end use(s)

See section 1.2

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

The following materials had no OELs on our records

- | | |
|---------------------------|---------------|
| • water: | CAS:7732-18-5 |
| • lauramidopropylbetaine: | CAS:4292-10-8 |
| • sodium benzoate: | CAS:532-32-1 |

No data available

BUBBLE SOLUTION FOR BUBBLE TOYS: Not available WATER:

No exposure limits set by NOHSC or ACGIH

LAURAMIDOPROPYLBETAINE:

Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat. Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations. Present day expectations require that nearly every individual should be protected against even minor sensory irritation and exposure standards are established using uncertainty factors or safety factors of 5 to 10 or more. On occasion animal no-observable-effect-levels (NOEL) are used to determine these limits where human results are unavailable. An additional approach, typically used by the TLV committee (USA) in determining respiratory standards for this group of chemicals, has been to assign ceiling values (TLV C) to rapidly acting irritants and to assign short-term exposure limits (TLV STELs) when the weight of evidence from irritation, bioaccumulation and other endpoints combine to warrant such a limit. In contrast the MAK Commission (Germany) uses a five-category system based on intensive odour, local irritation, and elimination half-life. However this system is being replaced to be consistent with the European Union (EU) Scientific Committee for Occupational Exposure Limits (SCOEL); this is more closely allied to that of the USA.

OSHA (USA) concluded that exposure to sensory irritants can:

- cause inflammation
- cause increased susceptibility to other irritants and infectious agents
- lead to permanent injury or dysfunction
- permit greater absorption of hazardous substances and
- acclimate the worker to the irritant warning properties of these substances thus increasing the risk of overexposure.

SODIUM BENZOATE:

It is the goal of the ACGIH (and other Agencies) to recommend TLVs (or their equivalent) for all substances for which there is evidence of health effects at airborne concentrations encountered in the workplace.

At this time no TLV has been established, even though this material may produce adverse health effects (as evidenced in animal experiments or clinical experience). Airborne concentrations must be maintained as low as is practically possible and occupational exposure must be kept to a minimum.

NOTE: The ACGIH occupational exposure standard for Particles Not Otherwise Specified (P.N.O.S) does NOT apply.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air)	0.25-0.5 m/s (50-100 f/min)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood - local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after

reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

8.2.2. Personal protection



Eye and face protection:

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59]

Skin protection:

See Hand protection: below

Hand protection:

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as:

- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739).

- When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended.
- When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.
- Contaminated gloves should be replaced.

Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of

a non-perfumed moisturiser is recommended.

- Wear chemical protective gloves, eg. PVC.
- Wear safety footwear or safety gumboots, eg. Rubber

Body protection: See Other protection: below

- Other protection:**
- Overalls.
 - P.V.C. apron.
 - Barrier cream.
 - Skin cleansing cream.
 - Eye wash unit.

Respiratory protection: No data available

Thermal hazards: No data available

Recommended material (s): Glove selection is based on a modified presentation of the: **"Forsberg Clothing Performance Index"**.
The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

Material	CPI
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* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

8.2.3. Environmental exposure controls

See section 12

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical Hazards	Appearance	Colourless Liquid
	Odour	No data available
	Odour threshold	No data available
	pH	8
	Melting point / freezing point	No data available
	Initial boiling point and boiling range	100
	Flash point	No data available
	Evaporation rate	No data available
	Flammability (solid, gas)	No data available
	Upper / lower flammability or exposure limits	No data available
	Vapour pressure	No data available
	Vapour density	No data available
	Relative density	No data available
	Solubility(ies)	Miscible
	Partition coefficient: n-octanol / water	No data available
	Auto-ignition temperature	No data available
	Decomposition temperature	No data available
	Viscosity	No data available
	Explosive properties	No data available
	Oxidising properties	No data available
	Physical state	Liquid
	Upper Explosive Limit	No data available
	Lower Explosive Limit	No data available
Volatile Component (%vol)	No data available	
Gas group	No data available	
Molecular weight	No data available	
Viscosity	No data available	

pH (1% solution)	No data available
pH (as supplied)	8
Specific Gravity (water=1)	1
Evaporation Rate	No data available
IUCLID Remarks	No data available
Log Kow	No data available

9.2. Other safety information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity	See section 7.2
10.2. Chemical stability	<ul style="list-style-type: none"> · Presence of incompatible materials. · Product is considered stable. · Hazardous polymerisation will not occur.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11: Toxicological information

11.1. Information on toxicological effects

! unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances. SODIUM BENZOATE: BUBBLE SOLUTION FOR BUBBLE TOYS: ! Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested. LAURAMIDOPROPYLBETAINE: WATER: ! No significant acute toxicological data identified in literature search. LAURAMIDOPROPYLBETAINE: ! For Fatty Nitrogen Derived (FND) Amides) The chemicals in the Fatty Nitrogen Derived (FND) Amides of surfactants are similar to the class in general as to physical/chemical properties, environmental fate and toxicity. Human exposure to these chemicals is substantially documented. Some typical applications of FND Amides are: masonry cement additive; curing agent for epoxy resins; closed hydrocarbon systems in oil field production, refineries and chemical plants; and slip and antiblocking additives for polymers. The safety of the FND Amides to humans is recognised by the U.S. FDA, which has approved stearamide, oleamide and/or erucamide for adhesives; coatings for articles in food contact; coatings for polyolefin films; defoaming agents for manufacture of paper and paperboard; animal glue (defoamer in food packaging); in EVA copolymers for food packaging; lubricants for manufacture of metallic food packaging; irradiation of prepared foods; release agents in manufacture of food packaging materials, food contact surface of paper and paperboard; cellophane in food packaging; closure sealing gaskets; and release agents in polymeric resins and petroleum wax. The low order of toxicity indicates that the use of FND Amides does not pose a significant hazard to human health. The differences in chain length, degree of saturation of the carbon chains, source of the natural oils, or addition of an amino group in the chain would not be expected to have an impact on the toxicity profile. This conclusion is supported by a number of studies in the FND family of chemicals (amines, cationics, and amides as separate categories) that show no differences in the length or degree of saturation of the alkyl substituents and is also supported by the limited toxicity of these long-chain substituted chemicals. The Fatty nitrogen-derived amides (FND amides) comprise four categories: - Subcategory I: Substituted Amides. Subcategory II: Fatty Acid Reaction Products with Amino Compounds (Note: Subcategory II chemicals, in many cases, contain Subcategory I chemicals as major components). Subcategory III: Imidazole Derivatives. Subcategory IV: FND Amphoterics. Acute Toxicity: The low acute oral toxicity of the FND Amides is well established across all Subcategories by the available data. The limited acute toxicity of these chemicals is also confirmed by four acute dermal and two acute inhalation studies. Repeated Dose and Reproductive Toxicity: Two subchronic toxicity studies demonstrating low toxicity are available for Subcategory I chemicals. In addition, a 5-day repeated dose study for a third chemical confirmed the minimal toxicity of these chemicals. Since the Subcategory I chemicals are major components of many Subcategory II chemicals, and based on the low repeat-dose toxicity of the amino compounds (e.g. diethanolamine, triethanolamine) used for producing the Subcategory II derivatives, the Subcategory I repeat-dose toxicity studies adequately support Subcategory II. Two subchronic toxicity studies in Subcategory III confirmed the low order of repeat dose toxicity for the FND Amides Imidazole derivatives. For Subcategory IV, two subchronic toxicity studies for one of the chemicals indicated a low order of repeat-dose toxicity for the FND amphoteric salts similar to that seen in the other categories. Genetic Toxicity in vitro: Based on the lack of effect of one or more chemicals in each subcategory, adequate data for mutagenic activity as measured by the Salmonella reverse mutation assay exist for all of the subcategories. Developmental Toxicity: A developmental toxicity study in Subcategory I and in Subcategory IV and a third study for a chemical in Subcategory III are available. The studies indicate these chemicals are not developmental toxicants, as expected based on their structures, molecular weights, physical properties and knowledge of similar chemicals. As above for repeat-dose toxicity, the data for Subcategory I are adequate to support Subcategory II. In evaluating potential toxicity of the FND Amides chemicals, it is also useful to review the available data for the related FND Cationic and FND Amines Category chemicals. Acute oral toxicity studies (approximately 80 studies for 40 chemicals in the three categories) provide LD50 values from approximately 400 to 10,000 mg/kg with no apparent organ specific toxicity. Similarly, repeated dose toxicity studies (approximately 35 studies for 15 chemicals) provide NOAELs between 10 and 100 mg/kg/day for rats and slightly lower for dogs. More than 60 genetic toxicity studies (in vitro bacterial and mammalian cells as well as in vivo studies) indicated no mutagenic activity among more than 30 chemicals tested. For reproductive

evaluations, 14 studies evaluated reproductive endpoints and/or reproductive organs for 11 chemicals, and 15 studies evaluated developmental toxicity for 13 chemicals indicating no reproductive or developmental effects for the FND group as a whole. SODIUM BENZOATE:

TOXICITY

Oral (rat) LD50: 4070 mg/kg

IRRITATION

Nil Reported

! For benzoates: Acute toxicity: Benzyl alcohol, benzoic acid and its sodium and potassium salt can be considered as a single category regarding human health, as they are all rapidly metabolised and excreted via a common pathway within 24 hrs. Systemic toxic effects of similar nature (e.g. liver, kidney) were observed. However with benzoic acid and its salts toxic effects are seen at higher doses than with benzyl alcohol. The compounds exhibit low acute toxicity as for the oral and dermal route. The LD50 values are > 2000 mg/kg bw except for benzyl alcohol which needs to be considered as harmful by the oral route in view of an oral LD50 of 1610 mg/kg bw. The 4 hrs inhalation exposure of benzyl alcohol or benzoic acid at 4 and 12 mg/l as aerosol/dust respectively gave no mortality, showing low acute toxicity by inhalation for these compounds. Benzoic acid and benzyl alcohol are slightly irritating to the skin, while sodium benzoate was not skin irritating. No data are available for potassium benzoate but it is also expected not to be skin irritating. Benzoic acid and benzyl alcohol are irritating to the eye and sodium benzoate was only slightly irritating to the eye. No data are available for potassium benzoate but it is expected also to be only slightly irritating to the eye. Sensitisation: The available studies for benzoic acid gave no indication for a sensitising effect in animals, however occasionally very low positive reactions were recorded with humans (dermatological patients) in patch tests. The same occurs for sodium benzoate. It has been suggested that the very low positive reactions are non-immunologic contact urticaria. Benzyl alcohol gave positive and negative results in animals. Benzyl alcohol also demonstrated a maximum incidence of sensitization of only 1% in human patch testing. Over several decades no sensitization with these compounds has been seen among workers. Repeat dose toxicity: For benzoic acid repeated dose oral toxicity studies give a NOAEL of 800 mg/kg/day. For the salts values > 1000 mg/kg/day are obtained. At higher doses increased mortality, reduced weight gain, liver and kidney effects were observed. For benzyl alcohol the long-term studies indicate a NOAEL > 400 mg/kg bw/d for rats and > 200 mg/kg bw/d for mice. At higher doses effects on bodyweights, lesions in the brains, thymus, skeletal muscle and kidney were observed. It should be taken into account that administration in these studies was by gavage route, at which saturation of metabolic pathways is likely to occur. Mutagenicity: All chemicals showed no mutagenic activity in in vitro Ames tests. Various results were obtained with other in vitro genotoxicity assays. Sodium benzoate and benzyl alcohol showed no genotoxicity in vivo. While some mixed and/or equivocal in vitro chromosomal/chromatid responses have been observed, no genotoxicity was observed in the in vivo cytogenetic, micronucleus, or other assays. The weight of the evidence of the in vitro and in vivo genotoxicity data indicates that these chemicals are not mutagenic or clastogenic. They also are not carcinogenic in long-term carcinogenicity studies. In a 4-generation study with benzoic acid no effects on reproduction were seen (NOAEL: 750 mg/kg). No compound related effects on reproductive organs (gross and histopathology examination) could be found in the (sub) chronic studies in rats and mice with benzyl acetate, benzyl alcohol, benzaldehyde, sodium benzoate and supports a non-reprotoxic potential of these compounds. In addition, data from reprotoxicity studies on benzyl acetate (NOAEL > 2000 mg/kg bw/d; rats and mice) and benzaldehyde (tested only up to 5 mg/kg bw; rats) support the non-reprotoxicity of benzyl alcohol and benzoic acid and its salts. Developmental toxicity: In rats for sodium benzoate dosed via food during the entire gestation developmental effects occurred only in the presence of marked maternal toxicity (reduced food intake and decreased body weight) (NOAEL = 1400 mg/kg bw). For hamster (NOEL: 300 mg/kg bw), rabbit (NOEL: 250 mg/kg bw) and mice (CD-1 mice, NOEL: 175 mg/kg bw) no higher doses (all by gavage) were tested and no maternal toxicity was observed. For benzyl alcohol: NOAEL = 550 mg/kg bw (gavage; CD-1 mice). LOAEL = 750 mg/kg bw (gavage mice). In this study maternal toxicity was observed e.g. increased mortality, reduced body weight and clinical toxicology. Benzyl acetate: NOEL = 500 mg/kg bw (gavage rats). No maternal toxicity was observed. NOTE: Oral doses of 8-10g may cause nausea and vomiting, though tolerance in human is 50 g/day. Use in food limited to 0.1%. [ICI]

SECTION 12: Ecological information

12.1. Toxicity

No data available

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
lauramidopropylbetaine	LOW	

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
lauramidopropylbetaine	LOW

12.4. Mobility in soil

Ingredient	Mobility
lauramidopropylbetaine	MED

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product / Packaging disposal:

- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or incineration in a licenced apparatus (after admixture with suitable combustible material).
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

Waste treatment options:

Sewage disposal options: No relevant data

Other disposal recommendations:

SECTION 14: Transport information

Labels Required: No data available

Land transport (ADR / RID / GGVSE)

14.1. UN number	None	14.4. Packing group	None
14.2. Proper shipping name	No data available	14.5. Environmental hazard	No relevant data
14.3. Transport hazard class(es)	No data available	14.6. Special precautions for user	Hazard identification (Kemler) No data available Classification Code No data available Hazard Label No data available Special provisions No data available

Air transport (ICAO-IATA / DGR)

14.1. UN number	None	14.4. Packing group	None
14.2. Proper shipping name	No data available	14.5. Environmental hazard	No relevant data
14.3. Transport hazard class(es)	No data available	14.6. Special precautions for user	Special provisions No data available Cargo Only Packing Instructions No data available Cargo Only Maximum Qty / Pack No data available Passenger and Cargo Packing Instructions No data available Passenger and Cargo Maximum Qty / Pack No data available Passenger and Cargo Limited Quantity Packing Instructions No data available Passenger and Cargo Maximum Qty / Pack No data available
	ICAO/IATA Class:	No data available	
	ICAO / IATA Subrisk	No data available	
	ERG Code	No data available	

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	None	14.4. Packing group	None
14.2. UN proper shipping name	No data available	14.5. Environmental hazard	No relevant data
14.3. Transport hazard class(es)	No data available	14.6. Special precautions for user	EMS Number No data available Special provisions No data available Limited Quantities No data available
	IMDG Subrisk	No data available	

14.7. Transport in bulk according to Annex II of MARPOL 73 / 78 and the IBC

No data available

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulation / legislation specific for the substance or mixture****Regulations for ingredients**

water (CAS: 7732-18-5) is found on the following regulatory lists;

"EU Directive 2002/72/EC Plastic materials and articles intended to come into contact with foodstuffs - Annex II Section A: List of authorised monomers and other starting substances", "EU Directive 2002/72/EC Plastic materials and articles intended to come into contact with foodstuffs - Annex III Section A Incomplete list of additives fully harmonised at Community level", "EU REACH Regulation (EC) No 1907/2006 - Annex IV - Exemptions from the Obligation to Register in Accordance with Article 2(7)(a) (English)", "European Customs Inventory of Chemical Substances (English)", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "European Union (EU) Inventory of Ingredients used in Cosmetic Products", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD Representative List of High Production Volume (HPV) Chemicals"

lauramidopropylbetaine (CAS: 4292-10-8) is found on the following regulatory lists;

"European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "European Union (EU) Inventory of Ingredients used in Cosmetic Products", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD Representative List of High Production Volume (HPV) Chemicals"

sodium benzoate (CAS: 532-32-1) is found on the following regulatory lists;

"European Chemicals Agency (ECHA) List of substances identified for registration in 2010", "European Customs Inventory of Chemical Substances (English)", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "European Union (EU) Inventory of Fragrance Ingredients (Perfume and Aromatic Raw Materials)", "European Union (EU) Inventory of Ingredients used in Cosmetic Products", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD Representative List of High Production Volume (HPV) Chemicals"

No data for Bubble Solution for Bubble Toys (CW: 1213607)

This safety data sheet is in compliance with the following EU legislation and its adaptations – as far as applicable - : 67/548/EEC, 1999/45/EC, 76/769/EEC, 98/24/EC, 92/85/EEC, 94/33/EC, 91/689/EEC, 1999/13/EC, as well as the following British legislation:

- The Control of Substances Hazardous to Health Regulations (COSHH) 2002
- COSHH Essentials
- The Management of Health and Safety at Work Regulations 1999

15.2. Chemical Safety Assessment

No data available

Annex VI

According to CLP no hazard category has been assigned

RISK

- None under normal operating conditions.

SECTION 16: Other information**ANNEX 2: Indications of Danger****EXPOSURE STANDARD FOR MIXTURES**

! "Worst Case" computer-aided prediction of spray/ mist or fume/ dust components and concentration: ! Composite Exposure Standard for Mixture (TWA) :100 mg/m³.

OTHER

- Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net/references

- The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

- For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 16 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

EN 133 Respiratory protective devices

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No data available

Annex to extended safety data sheet (eSDS) (REACH)**Exposure scenario**