SAFETY DATA SHEET
Benzyl Alcohol, Sodium Benzoate, Potassium Sorbate

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

1.1 Product Identifier:

SKU	90058
INCI Name	Benzyl Alcohol, Water, Potassium Sorbate, Sodium Benzoate

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:

Product Use:	Preservative for cosmetic use

1.3 Details of the Supplier of the Safety Data Sheet:

Distributer:	Shay and Company 10639 SE Fuller Rd Milwaukie OR 97222
Information Phone Number:	503-653-1155
E-mail	info@shayandcompany.com

1.4 Emergency Telephone Number:

Emergency Spill Information	503-653-1155 Shay and Company (800) 222-1222 (National Poison Control Center)

SDS Date of Revision: July 31, 2023

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]:

Acute toxicity, category 4; H332
Eye irritation, category 2; H319
For full text of H- and P- phrases: see SECTION 16

2.2 Label Elements: *Labeling according to Regulation (EC) No 1272/2008 [CLP]*

Signal word:
Warning
Hazard Statements:

H332, H319
Precautionary Statements:
P261, P280, P312

2.3 Other Hazards: On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%. The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	EINECS#	REACH Registration Number	CLP Classification (EC) No 1272/2008	%
Benzyl Alcohol	100-51-6	202-859-9	01-2119492630-XX-XXXX	Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Irrit. 2 H319.	50%
(E, E) -esa-2,4-potassium dienoate	24634-61-5	246-376-1	01-2119950315-XX-XXXX	Eye Irrit. 2 H319	15%
Sodium Benzoate	532-32-1	208-534-8	01-2119460683-XX-XXXX	Eye Irrit. 2 H319	10%

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures:

Eye Contact: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
Skin Contact: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
Inhalation: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
Ingestion: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorized by a doctor.

4.2 Most Important symptoms and effects, both acute and delayed:

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

SECTION 5: FIRE FIGHTING MEASURES

5.1 Suitable Extinguishing Media:

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

Unsuitable extinguishing media

None in particular.

5.3 Special Hazards Arising from the Substance or Mixture:

Hazards caused by exposure in the event of fire:

Do not breathe combustion products.

5.4 Advice for Fire-Fighters:

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

Special Protective Equipment for Fire-Fighters:

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Block the leakage if there is no hazard. Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2 Environmental Precautions:

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3 Methods and Material for Containment and Cleaning Up:

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4 Reference to Other Sections:

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2 Conditions for Safe Storage, Including any Incompatibilities:

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details. Storage class TRGS 510 (Germany): 12

7.3 Advice on general occupational hygiene:

(a) not to eat, drink and smoke in work areas.
(b) to wash hands after use; and
(c) to remove contaminated clothing and protective equipment before entering eating areas.

7.4 Specific end use(s): Information not available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

Benzyl Alcohol

Predicted no-effect concentration - PNEC		
Normal value in fresh water	1	mg/l
Normal value for marine water sediment	5,27	mg/kg
Normal value for water, intermittent release	2,3	mg/l
Normal value of STP microorganisms	39	mg/l
Normal value for the terrestrial compartment	0,456	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	25 mg/kg	VND	5 mg/kg				
Inhalation	VND	95,5 mg/m3	VND	19,1 mg/m3	VND	450 mg/m3	VND	90 mg/m3
Skin	VND	28,5 mg/kg	VND	5,7 mg/kg	VND	47 mg/kg	VND	9,5 mg/kg

(E,E) -esa-2,4-potassium dienoate

Predicted no-effect concentration - PNEC		
Normal value in fresh water	1	mg/l
Normal value in marine water	0,1	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for marine water sediment	0,36	mg/kg
Normal value for water, intermittent release	4,8	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	1,67	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	VND	VND	2 mg/kg bw/d	VND	VND	VND	VND
Inhalation	VND	VND	26,08 mg/m3	52,17 mg/m3	VND	VND	VND	17,63 mg/m3
Skin	17 mg/cm2	20 mg/kg bw/d	20 mg/kg bw/d		VND	VND	NPI	40 mg/kg bw/d

Sodium Benzoate

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,13	mg/l
Normal value in marine water	0,013	mg/l
Normal value for fresh water sediment	1,76	mg/kg/d
Normal value for marine water sediment	0,176	mg/kg/d
Normal value for water, intermittent release	305000	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	300	mg/kg
Normal value for the terrestrial compartment	0,276	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	VND	VND	25 mg/kg/d	VND	VND	VND	VND
Inhalation	VND	VND	1,3 mg/m3	2,1 mg/m3	VND	VND	6,3 mg/m3	10,4 mg/m3
Skin	VND	VND	2,7 mg/cm2	20,8 mg/kg/d	VND	VND	4,5 mg/cm2	34,7 mg/kg/d

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2 Exposure Controls

8.2.1 Engineering measures: As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. When choosing personal protective equipment, ask your chemical substance supplier for advice. Personal protective equipment must be CE marked, showing that it complies with applicable standards. Provide an emergency shower with face and eye wash station.

8.2.2 Individual protection measures, such as personal protective equipment:

Hand Protection: Protect hands with category III work gloves (see standard EN 374). The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability. The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION: Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Respiratory Protection: If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required. Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited. If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529
Eye Protection: Wear airtight protective goggles (see standard EN 166).
Environmental Exposure Controls: The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties:

Physical State: ***Appearance*****:** Liquid	**pH (Conc. 100%):** 8
Color : Yellowish	**Kinematic Viscosity:** Not available
Odor: characteristic	**Solubility:** soluble in water
Melting Point: Not available	
Freezing point: Not available	**Partition coefficient: n-octanol/water: N**ot available
Initial Boiling Point & Range: Not available	**Vapor Pressure:** Not available
Flammability (Liquids, solid, gas): Not available	**Density and or Relative density (20 deg C):** 1.11 g/cm3
Lower and upper Explosion Limit: Not available	**Relative Vapor Density:** Not available
Flash Point: Not available	**Particle characteristics: N**ot applicable
Auto-ignition temperature (gasses and liquid): Not available	
Decomposition temperature: Not available	

9.2 Other physical chemical Information:

Information not available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

There are no particular risks of reaction with other substances in normal conditions of use.

10.2 Chemical Stability:

The product is stable in normal conditions of use and storage. (E,E) -esa-2,4-potassium dienoate is stable up to 210 °C.

10.3 Possibility of Hazardous Reactions:

No hazardous reactions are foreseeable in normal conditions of use and storage.

Benzyl alcohol

May react dangerously with: strong oxidizing agents.

10.4 Conditions to Avoid:

None in particular. However the usual precautions used for chemical products should be respected.

SODIUM BENZOATE

Avoid exposure to: heat,moist air.

10.5 Incompatible Materials:

Benzyl alcohol

Incompatible with: oxidising agents,strong acids,metals.

(E,E) -esa-2,4-potassium dienoate

Incompatible with: oxidizing agents.

SODIUM BENZOATE

Incompatible with: acids, oxidizing agents, iron salts.

10.6 Hazardous Decomposition Products:

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

Benzyl alcohol

When heated to decomposition releases: carbon oxides,nitric oxide.

SODIUM BENZOATE

When heated to decomposition releases: carbon oxides,sodium oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:

Metabolism, toxicokinetics, mechanism of action and other information:
Information not available
Information on likely routes of exposure:
Information not available
Delayed and immediate effects as well as chronic effects from short and long-term exposure:
Information not available
Interactive effects:
Information not available

ACUTE TOXICITY	
ATE (Inhalation - mists / powders) of the mixture:	3,0 mg/l
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)
Benzyl alcohol	
LD50 (Dermal)	2000 mg/kg rabbit
LD50 (Oral)	1620 mg/kg rat
LC50 (Inhalation vapours)	>4178 mg/l/4h rat OECD 403
STA (Inhalation vapours)	11 mg/l estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
(E,E) -esa -2,4-potassium dienoate	
LD50 (Dermal)	>2000 mg/kg rat read across
LD50 (Oral)	10500 mg/kg rat read across
Sodium Benzoate	
LD50 (Dermal)	>2000 mg/kg rabbit read across
LD50 (Oral)	3140 mg/kg rat

LC50 (Inhalation mists/powders)	>12,2 mg/l/4h rat read across

SKIN CORROSION / IRRITATION:
Does not meet the classification criteria for this hazard class
SERIOUS EYE DAMAGE / IRRITATION:
Causes serious eye irritation
RESPIRATORY OR SKIN SENSITISATION:
Does not meet the classification criteria for this hazard class
Respiratory sensitization:
Information not available
Skin sensitization:
Information not available
GERM CELL MUTAGENICITY:
Does not meet the classification criteria for this hazard class
CARCINOGENICITY:
Does not meet the classification criteria for this hazard class
REPRODUCTIVE TOXICITY:
Does not meet the classification criteria for this hazard class
Adverse effects on sexual function and fertility:
Information not available
Adverse effects on development of the offspring:
Information not available
Effects on or via lactation:
Information not available
STOT - SINGLE EXPOSURE:
Does not meet the classification criteria for this hazard class
Target organs:
Information not available
Route of exposure:
Information not available
STOT - REPEATED EXPOSURE:
Does not meet the classification criteria for this hazard class
Target organs
Information not available
Route of exposure
Information not available
ASPIRATION HAZARD
Does not meet the classification criteria for this hazard class

11.2 Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12: ECOLOGICAL INFORMATION

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1 Ecotoxicity

Components:

Benzyl alcohol		
LC50	For fish	460 mg/l/96h Pimephales promelas EPA OPP 72-1
EC50	For Crustacea	230 mg/l/48h Daphnia magna OECD 202
EC 50	For Algae/Aquatic Plants	770 mg/l/72h Pseudokirchneriella subcapitata OECD 201
Chronic NOEC	For Crustacea	51 mg/l Daphnia magna OECD 211
Chronic NOEC	For Algae/Aquatic Plants	310 mg/l Pseudokirchneriella subcapitata OECD 201
(E,E) -esa-2,4-potassium dienoate		
LC 50	For fish	> 500 mg/l/96h Danio rerio
EC50	For Crustacea	982 mg/l/48h Daphnia magna
EC50	For Algae/Aquatic Plants	480 mg/l/72h Desmodesmus subspicatus
Chronic NOEC	For Crustacea	50 mg/l Daphnia magna read across
Chronic NOEC	For Algae/Aquatic Plants	105 mg/l Desmodesmus subspicatus
Sodium Benzoate		
LD50	For Fish	> 484 mg/l/96h Pimephales promelas EPA OPP 72-1
EC50	For Crustacea	> 100 mg/l/48h Daphnia magna
EC50	For Algae/Aquatic Plants	> 100 mg/l/72h Pseudokirchneriella subcapitata OECD 201
Chronic NOEC	For Fish	10 mg/l Brachydanio rerio
Chronic NOEC	For Crustacea	51 mg/l/21d Daphnia magna

12.2 Persistence and degradability

Components:			
Benzyl Alcohol			
		Solubility in Water	40 g/l @ 25°C
		Readily degradable	95 -97 % in 21 days (OECD 301A)
E,E) -esa-2,4-potassium dienoate			

		Solubility in water	1,95 g/l 20°C
		Readily degradable	74,9 28d OECD 301D read across
Sodium Benzoate			
		Solubility in water	556 g/l 20°C
		Readily degradable	

12.3 **Bioaccumulative Potential**

Components:		
Benzyl alcohol:		
	Partition coefficient: n-octanol/water	1,05 Log Kow @ 20°C
	BCF	1,37 L/Kg ww QSAR
(E,E) -esa-2,4-potassium dienoate:		
	Partition coefficient: n-octanol/water	-1,72 @20°C OECD 117 read across
	BCF	0,007 aquatic species EU TGD read across
Sodium Benzoate:		
	Partition coefficient: n-octanol/water	1,88 read across

12.4 **Mobility in Soil**

Components:		
Benzyl alcohol:		
	Partition coefficient: soil/water	1,1221 l/kg @ 20°C QSAR
(E,E) -esa-2,4-potassium dienoate:		
	Partition coefficient: soil/water	-1,82 @ 20°C read across

12.5 Results of PBT and vPvB Assessment:

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6 Endocrine Disrupting Properties:

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation

12.7 Other Adverse Effects:

Information not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations. Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14: TRANSPORT INFORMATION

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Roa (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

	US DOT	EU land transport (ADR/RID/ADN)	Sea Transport (IMDG)	Air Transport (ICAO/IATA)
14.1 UN Number OR ID	**N/A**	**N/A**	**N/A**	**N/A**
14.2 UN Proper Shipping Name	**N/A**	**N/A**	**N/A**	**N/A**
14.3 Transport Hazard Class(s)	**N/A**	**N/A**	**N/A**	**N/A**
14.4 Packing Group	**N/A**	**N/A**	**N/A**	**N/A**
14.5 Environmental Hazards	**N/A**	**N/A**	**N/A**	**N/A**
14.6 Special Precautions for user	**N/A**	**N/A**	**N/A**	**N/A**
14.7 Maritime transport in bulk according to IMO instruments	**N/A**	**N/A**	**N/A**	**N/A**

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environment Regulations/Legislation Specific for the Substance or Mixture:

EU EINECS/ELINCS/NLP:	All of the components of this product are listed on the EINECS Inventory.
Canada DSL/NDSL:	All of the components of this product are listed on the DSL.
US TSCA	All of the components of this product are listed on the US TSCA.

China IECSC:	All of the components of this product are listed on the IECSC.
Japan ENCS:	All of the components are listed on the Japanese Existing and New Chemical Substances Inventory.
Philippine PICCS:	All of the components of this product are listed on the PICCS.
Australia AICS:	All of the components of this product are listed on the AICS.

WGK 1: Low hazard to waters

15.2 Chemical Safety Assessment:
A chemical safety assessment has been performed for the following contained substances
Benzyl alcohol
SODIUM BENZOATE

SECTION 16: OTHER INFORMATION

16.1 Indication of Changes
GHS_CLP SDS – version 5 on August 6, 2024 – disclaimer/address
GHS_CLP SDS – version 4 on June 7, 2024: new logo
GHS_CLP SDS – version 3 on July 31, 2023
GHS_CLP SDS – version 2 on June 23, 2017
GHS_CLP SDS – version 1 on July 29, 2015

16.2 List of Relevant CLP Phrases for reference (See Section 2 and 3)
R- phrases (number and full text):
Hazard Phrases:
H332: Harmful if inhaled
H319: Causes serious eye irritation

P261: Avoid breathing dust / fume / gas / mist / vapours / spray
P280: Wear eye protection/face protection
P312: If you feel unwell, call a POISON CENTER/doctor

16.3 Please note Shay and Company does not test on animals. Data provided within this documents has been applied from already accessible information from Public Domain and pre-existing information that is widely available.

16.4 Disclaimer

The statements contained in this document are for informational purposes only and are intended to be generally representative of the raw material supplied by Shay and Company or its affiliates. They are derived from information obtained from tests and analysis, including those conducted by Shay and Company's vendors. The recipient of this document is cautioned against relying on it without independent investigation as to the accuracy and completeness of the statements set forth herein, or the suitability or fitness of the raw material for any particular purpose. This document does not constitute a representation or warranty by Shay and Company; the parties' written agreement is the sole and exclusive source of any representation or warranty. Shay and Company HEREBY DISCLAIMS ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE