## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 11/21/2017 Revision date: 11/21/2017 Version: 1.2

SECTION 1: Identification	
1.1. Identification	
Product form	: Mixture
Product name	: PIPE TOBACCO
CAS-No.	: N/A
1.2. Recommended use and restrictions	s on use
No additional information available	
1.4. Emergency telephone number	
Emergency number	: Chemtrec - USA: 800-424-9300
SECTION 2: Hazard(s) identification	
2.1. Classification of the substance or r	
GHS-US classification	
Skin corrosion/irritation Category 2	Causes skin irritation
Serious eye damage/eye irritation Category 2	Causes serious eye irritation
Skin sensitization, Category 1	May cause an allergic skin reaction
2.2. GHS Label elements, including pre-	cautionary statements
GHS-US labeling	
Hazard pictograms (GHS-US)	: GHS07
Signal word (GHS-US)	: Warning
Hazard statements (GHS-US)	: Causes skin irritation May cause an allergic skin reaction Causes serious eye irritation
Precautionary statements (GHS-US)	<ul> <li>Avoid breathing dust/fume/gas/mist/vapors/spray.</li> <li>Wash hands, forearms and face thoroughly after handling.</li> <li>Contaminated work clothing must not be allowed out of the workplace</li> <li>Wear protective gloves/protective clothing/eye protection/face protection.</li> <li>If on skin: Wash with plenty of water</li> <li>If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing</li> <li>Specific treatment (see supplemental first aid instruction on this label)</li> <li>If skin irritation occurs: Get medical advice/attention.</li> <li>If eye irritation persists: Get medical advice/attention.</li> <li>If eye irritation persists: Get medical advice/attention.</li> <li>Take off contaminated clothing before reuse.</li> <li>Wash contaminated clothing before reuse.</li> <li>Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation</li> </ul>

No addit	ional information available		
2.4.	Unknown acute toxicity (GHS US)		
Not app	Not applicable		
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#### **SECTION 3: Composition/Information on ingredients**

#### 3.1. Substances

#### Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2- naphthalenyl)ethanone	(CAS-No.) 54464-57-2	10 - 25	Skin Irrit. 2, H315 Skin Sens. 1B, H317
ETHYL VANILLIN	(CAS-No.) 121-32-4	1 - 5	Eye Irrit. 2B, H320
VANILLIN	(CAS-No.) 121-33-5	1 - 5	Eye Irrit. 2, H319
EUGENOL	(CAS-No.) 97-53-0	1 - 5	Eye Irrit. 2, H319 Skin Sens. 1, H317
COUMARIN	(CAS-No.) 91-64-5	1 - 5	Acute Tox. 4 (Oral), H302 Skin Sens. 1B, H317
LINALOOL	(CAS-No.) 78-70-6	1 - 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
PIPERONAL	(CAS-No.) 120-57-0	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
CINNAMIC ALDEHYDE	(CAS-No.) 104-55-2	1 - 5	Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317

Full text of hazard classes and H-statements : see section 16

SECTI	ON 4: First-aid measures	
4.1.	Description of first aid measures	
First-aid	measures after inhalation :	Remove person to fresh air and keep comfortable for breathing.
First-aid	measures after skin contact :	Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid	measures after eye contact :	Rinse eyes with water as a precaution.
First-aid	measures after ingestion :	Call a poison center/doctor/physician if you feel unwell.
4.2.	Most important symptoms and effects	(acute and delayed)
Symptom	ns/effects after skin contact :	Irritation. May cause an allergic skin reaction.
Symptom	ns/effects after eye contact :	Eye irritation.
4.3.	Immediate medical attention and spec	ial treatment, if necessary
Treat syr	nptomatically.	
SECTI	ON 5: Fire-fighting measures	
5.1.	Suitable (and unsuitable) extinguishin	g media
Suitable	extinguishing media :	Water spray. Dry powder. Foam. Carbon dioxide.
5.2.	Specific hazards arising from the cher	nical
Reactivit	y :	The product is non-reactive under normal conditions of use, storage and transport.
5.3.	Special protective equipment and pred	cautions for fire-fighters
Protectio	n during firefighting :	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
SECTI	ON 6: Accidental release measu	res
6.1.	Personal precautions, protective equi	oment and emergency procedures
6.1.1.	For non-emergency personnel	
Emergen	cy procedures :	Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.
6.1.2.	For emergency responders	
Protectiv	e equipment :	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

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	<u> </u>	
6.2. Environmental precautions Avoid release to the environment.		
6.3. Methods and material for containn		
Methods for cleaning up Other information	<ul> <li>Take up liquid spill into absorbent material.</li> <li>Dispose of materials or solid residues at an authorized site.</li> </ul>	
	. Dispose of materials of solid residues at an authorized site.	
6.4. Reference to other sections		
For further information refer to section 13.		
SECTION 7: Handling and storage		
7.1. Precautions for safe handling		
Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.	
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.	
7.2. Conditions for safe storage, include	ling any incompatibilities	
Storage conditions	: Store in a well-ventilated place. Keep cool.	
SECTION & Evenesure controle/por		
SECTION 8: Exposure controls/per	sonal protection	
8.1. Control parameters		
COUMARIN (91-64-5)		
Not applicable		
ETHYL VANILLIN (121-32-4)		
Not applicable		
VANILLIN (121-33-5)		
Not applicable		
1-(1.2.3.4.5.6.7.8-Octahydro-2.3.8.8-tetrame	ethyl-2-naphthalenyl)ethanone (54464-57-2)	
Not applicable		
CINNAMIC ALDEHYDE (104-55-2)		
Not applicable		
EUGENOL (97-53-0) Not applicable		
PIPERONAL (120-57-0)		
Not applicable		
LINALOOL (78-70-6)		
Not applicable		
8.2. Appropriate engineering controls		
Appropriate engineering controls	: Ensure good ventilation of the work station	

Appropriate engineering controls

- Ensure good ventilation of the work station.Avoid release to the environment.
- Environmental exposure controls

#### Individual protection measures/Personal protective equipment

#### Hand protection:

8.3.

Protective gloves

Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

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#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

<b>SECTION 9: Physical and chemica</b>	l properties
9.1. Information on basic physical and	I chemical properties
Physical state	: Liquid
Color	: COLORLESS TO PALE YELLOW
Odor	: CHARACTERISTIC, MATCHING RETAINER SAMPLE
Odor threshold	: No data available
рН	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 144 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 0.964 (0.954 - 0.974)
Solubility	: Insoluble.
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
9.2. Other information	
Refractive index	: 1.476 (1.466 - 1.486)

## SECTION 10: Stability and reactivity

10.1	1.	Rea	ctivitv

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability
Stable under normal conditions.
10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.
10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).
10.5. Incompatible materials
No additional information available
10.6. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SECTION 11: Toxicological information
11.1. Information on toxicological effects

Acute toxicity

: Not classified

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COUMARIN (91-64-5)	
ATE US (oral)	500 mg/kg body weight
ETHYL VANILLIN (121-32-4)	
ATE US (oral)	3000 mg/kg body weight
VANILLIN (121-33-5)	
LD50 oral rat	3300 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male/female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male/female, Experimental value, Dermal, 14 day(s))
ATE US (oral)	3300 mg/kg body weight
CINNAMIC ALDEHYDE (104-55-2)	
LD50 oral rat	2220 mg/kg (Rat, Oral)
LD50 dermal rabbit	1260 ml/kg (24 h, Rabbit, Male/female, Experimental value, Dermal)
ATE US (oral)	2220 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
EUGENOL (97-53-0)	
LD50 oral rat	> 2000 mg/kg body weight (Equivalent or similar to OECD 423, Rat, Male/female,
	Experimental value, Oral)
LC50 inhalation rat (mg/l)	> 2.6 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male/female, Experimental value, Inhalation (aerosol))
ATE US (oral)	2300 mg/kg body weight
PIPERONAL (120-57-0)	
LD50 oral rat	2700 mg/kg (Rat, Oral)
LD50 dermal rat	> 5000 mg/kg (Rat, Dermal)
ATE US (oral)	2700 mg/kg body weight
LINALOOL (78-70-6)	
LD50 oral rat	2790 mg/kg (Rat)
LD50 dermal rat	5610 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
ATE US (oral)	2790 mg/kg body weight
ATE US (dermal)	5610 mg/kg body weight
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
COUMARIN (91-64-5)	
IARC group	3 - Not classifiable
EUGENOL (97-52-0)	
EUGENOL (97-53-0)	3 - Not classifiable
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.
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ECTION 12: Ecological information	
2.1. Toxicity	
cology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
VANILLIN (121-33-5)	
LC50 fish 1	57 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 Daphnia 1	36.79 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 (algae)	120 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
CINNAMIC ALDEHYDE (104-55-2)	
LC50 fish 1	105.76 mg/l (96 h, Pimephales promelas, Flow-through system, Fresh water, QSAR, Estimated value)
EC50 Daphnia 1	119.56 mg/l (48 h, Daphnia magna, Static system, Fresh water, QSAR, Estimated value)
EUGENOL (97-53-0)	
LC50 fish 1	13 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	1.13 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 (algae)	24 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
LINALOOL (78-70-6)	
EC50 Daphnia 1	59 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna)
EC50 other aquatic organisms 1	>= 100 mg/l (3 h; Activated sludge)
LC50 fish 2	27.8 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Salmo gairdneri)
Threshold limit algae 1	88.3 mg/l (EC50; 96 h)

#### 12.2. Persistence and degradability

VANILLIN (121-33-5)		
Persistence and degradability	Readily biodegradable in water.	
CINNAMIC ALDEHYDE (104-55-2)		
Persistence and degradability	Readily biodegradable in water.	
EUGENOL (97-53-0)		
Persistence and degradability	Readily biodegradable in water.	
PIPERONAL (120-57-0)		
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.	
ThOD	1.71 g O <sub>2</sub> /g substance	
LINALOOL (78-70-6)		
Persistence and degradability	Readily biodegradable in water.	
Biochemical oxygen demand (BOD)	1.531 g O <sub>2</sub> /g substance	
Chemical oxygen demand (COD)	2.808 g O <sub>2</sub> /g substance	

#### 12.3. Bioaccumulative potential

VANILLIN (121-33-5)		
Log Pow	1.17 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
CINNAMIC ALDEHYDE (104-55-2)		
Log Pow	1.84 (Calculated)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	

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EUGENOL (97-53-0)		
Log Pow	1.83 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 30 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
PIPERONAL (120-57-0)		
Log Pow	1.05	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
LINALOOL (78-70-6)		
Log Pow	2.84 - 3.145	
Bioaccumulative potential	Bioaccumable.	

#### 12.4. Mobility in soil

VANILLIN (121-33-5)		
Log Koc	3.438 (log Koc, Experimental value)	
Ecology - soil	Low potential for mobility in soil.	
CINNAMIC ALDEHYDE (104-55-2)		
Surface tension	45.3 mN/m (20 °C, Experimental value)	
Log Koc	1.57 (log Koc, Other, Calculated value)	
Ecology - soil	Highly mobile in soil.	
EUGENOL (97-53-0)		
Ecology - soil	No (test)data on mobility of the substance available.	

#### 12.5. Other adverse effects

No additional information available

SECTION 13: Disposal consider 13.1. Disposal methods	ations
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
SECTION 14: Transport informa	tion
Department of Transportation (DOT)	
In accordance with DOT Not regulated	

#### Transport by sea

Not applicable

#### Air transport

Not applicable

5.1. US Federal regulations		
COUMARIN (91-64-5)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
ETHYL VANILLIN (121-32-4)		
Listed on the United States TSC	(Toxic Substances Control Act) inventory	
VANILLIN (121-33-5)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
1-(1,2,3,4,5,6,7,8-Octahydro-2,3	3,8-tetramethyl-2-naphthalenyl)ethanone (54464-57-2)	
Listed on the United States TSC	(Toxic Substances Control Act) inventory	

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CINNAMIC ALDEHYDE (104-55-2)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
EUGENOL (97-53-0)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
PIPERONAL (120-57-0)		
PIPERONAL (120-57-0) Listed on the United States TSCA (Toxic Substances Control Act) inventory		

## 15.2. International regulations

#### CANADA

COUMARIN (91-64-5)		
Listed on the Canadian DSL (Domestic Substances List)		
ETHYL VANILLIN (121-32-4)		
Listed on the Canadian DSL (Domestic Substances List)		
VANILLIN (121-33-5)		
Listed on the Canadian DSL (Domestic Substances List)		
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone (54464-57-2)		
Listed on the Canadian DSL (Domestic Substances List)		
CINNAMIC ALDEHYDE (104-55-2)		
Listed on the Canadian DSL (Domestic Substances List)		
EUGENOL (97-53-0)		
Listed on the Canadian DSL (Domestic Substances List)		
PIPERONAL (120-57-0)		
Listed on the Canadian DSL (Domestic Substances List)		
LINALOOL (78-70-6)		
Listed on the Canadian DSL (Domestic Substances List)		

#### **EU-Regulations**

No additional information available

#### **National regulations**

No additional information available

# 15.3. US State regulations This product can expose you to toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. ▲ WARNING: This product can expose you to methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. This product can expose you to methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. This product can expose you to myrcene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

Revision date

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Full	Full text of H-phrases:			
	H227	Combustible liquid		
	H302	Harmful if swallowed		
	H312	Harmful in contact with skin		
	H315	Causes skin irritation		
	H317	May cause an allergic skin reaction		
	H319	Causes serious eye irritation		
	H320	Causes eye irritation		

#### SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product