



CLOVE BUD OIL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification

1.1. Identification

Name : CLOVE BUD OIL
CAS No : 8000-34-8

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

Use of the substance/mixture : Uses: Essential Oil

1.3. Details of the supplier of the safety data sheet

NOW Health Group
NOW Foods
395 Glen Ellyn Road
Bloomington, IL 60108 - USA
Phone: 1 630 545-9098

1.4. Emergency telephone number

Emergency number : Chemtel: 1-800-424-9300 24 Hours Emergency (US) 1-813-248-0585 (International)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute Tox. 4 (Oral)	H302 -	Harmful if swallowed
Acute Tox. 4 (Dermal)	H312 -	Harmful in contact with skin
Skin Sens. 1	H317 -	May cause an allergic skin reaction
Asp. Tox. 1	H304 -	May be fatal if swallowed and enters airways

Full text of H-statements: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

GHS08

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H302+H312 - Harmful if swallowed or in contact with skin
H304 - May be fatal if swallowed and enters airways
H317 - May cause an allergic skin reaction

Precautionary statements (GHS-US) :

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P272 - Contaminated work clothing must not be allowed out of the workplace
P280 - Wear protective gloves/protective clothing/eye protection
P301+P310 - IF SWALLOWED: immediately call a POISON CENTER or doctor/physician
P301+P312 - IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P312 - Call a POISON CENTER or doctor/physician if you feel unwell
P321 - Specific treatment (see ... on this label)
P330 - Rinse mouth
P331 - Do NOT induce vomiting
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P405 - Store locked up
P501 - Dispose in a safe manner in accordance with local/national regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

CLOVE BUD OIL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Eugenol	(CAS No) 97-53-0	65 - 80	Skin Sens. 1B, H317
CARYOPHYLLENE	(CAS No) 87-44-5	10 - 25	Asp. Tox. 1, H304
EUGENYL ACETATE	(CAS No) 93-28-7	5 - 10	Acute Tox. 4 (Oral), H302

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Unconscious: maintain adequate airway and respiration. Check the vital functions. Vomiting: prevent asphyxia/aspiration pneumonia. Respiratory arrest: artificial respiration or oxygen. Prevent cooling by covering the victim (no warming up). Keep the victim calm, avoid physical strain. Keep watching the victim. Give psychological aid. Call a physician immediately. Cardiac arrest: perform resuscitation.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Remove victim to fresh air.
First-aid measures after skin contact	: Wash immediately with lots of water (15 minutes)/shower. 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	: Obtain medical attention if pain, blinking or redness persist. Rinse immediately with plenty of water for 15 minutes. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Do not apply (chemical) neutralizing agents.
First-aid measures after ingestion	: Rinse mouth with water, do not induce vomiting, call a doctor. Call a poison center or a doctor if you feel unwell. Do not induce vomiting. Call a physician immediately. Ingestion of large quantities: immediately to hospital.

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

Symptoms/injuries after skin contact	: May cause an allergic skin reaction. Tingling/irritation of the skin.
Symptoms/injuries after eye contact	: Eye irritation. Irritation of the eye tissue.
Symptoms/injuries after ingestion	: Risk of lung oedema.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: None.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Combustible liquid.
Explosion hazard	: No data available.
Reactivity	: On combustion, forms: carbon oxides (CO and CO ₂).

5.3. Advice for firefighters

Precautionary measures fire	: Keep upwind.
Firefighting instructions	: No data available.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Face shield. Gloves. Protective clothing.
Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Wash contaminated clothes. Avoid contact with skin, eyes and clothing. Mark the danger area.

CLOVE BUD OIL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak, if possible without risk. Contain leaking substance, pump over in suitable containers.
Methods for cleaning up : Take up liquid spill into absorbent material. Take up liquid spill into absorbent material. Scoop absorbed substance into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.
Other information : Dispose of materials or 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. Comply with local regulations for disposal. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wash contaminated clothing before reuse. No open flames. No smoking. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. Carry out operations in the open/under local exhaust/ventilation or with respiratory protection.
Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.
Heat and ignition sources : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Storage area : Store in a dry, cool area. Store in a dark area. Meets the legal requirements. Store away from heat.
Special rules on packaging : Meets the legal requirements. opaque.
Packaging materials : No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Materials for protective clothing : No data available.
Hand protection : Gloves.
Eye protection : Face shield. Safety glasses.
Skin and body protection : Protective clothing.
Respiratory protection : Gas mask with filter type.
Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Liquid.
Colour : light yellow Colourless
Odour : characteristic
Odour threshold : No data available
pH : No data available
Melting point : Not applicable

CLOVE BUD OIL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Freezing point	: No data available
Boiling point	: 250 °C
Flash point	: > 200 °F
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Vapour pressure	: 0.009 mm Hg 20°C
Relative density	: 1.038 (1.04 - 1.06)
Relative vapour density at 20 °C	: No data available
Solubility	: Soluble in ether. Soluble in acetic acid. Soluble in ethanol. insoluble in water.
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

Other properties : Slightly volatile.

SECTION 10: Stability and reactivity

10.1. Reactivity

On combustion, forms: carbon oxides (CO and CO2).

10.2. Chemical stability

No data available.

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 : Oral: Harmful if swallowed. Dermal: Harmful in contact with skin.

CLOVE BUD OIL (8000-34-8)	
LD50 oral rat	1370 mg/kg (Rat)
LD50 dermal rabbit	1200 mg/kg (Rabbit)
ATE US (oral)	1370.000 mg/kg bodyweight
ATE US (dermal)	1200.000 mg/kg bodyweight

EUGENYL ACETATE (93-28-7)	
ATE US (oral)	500.000 mg/kg bodyweight

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

CLOVE BUD OIL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Eugenol (97-53-0)	
IARC group	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	: May be fatal if swallowed and enters airways.
Symptoms/injuries after skin contact	: May cause an allergic skin reaction. Tingling/irritation of the skin.
Symptoms/injuries after eye contact	: Eye irritation. Irritation of the eye tissue.
Symptoms/injuries after ingestion	: Risk of lung oedema.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Ecology - water	: No data available on ecotoxicity.

12.2. Persistence and degradability

CLOVE BUD OIL (8000-34-8)	
Persistence and degradability	Biodegradability in water: no data available.
Eugenol (97-53-0)	
Persistence and degradability	Not established.
CARYOPHYLLENE (87-44-5)	
Persistence and degradability	Not established.
EUGENYL ACETATE (93-28-7)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

CLOVE BUD OIL (8000-34-8)	
Bioaccumulative potential	No data available.
Eugenol (97-53-0)	
Bioaccumulative potential	Not established.
CARYOPHYLLENE (87-44-5)	
Bioaccumulative potential	Not established.
EUGENYL ACETATE (93-28-7)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming	: No known ecological damage caused by this product.
------------------------------	------------------------------------------------------

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Refer to manufacturer/supplier for information on recovery/recycling. Comply with local regulations for disposal. Remove to an authorized waste treatment plant.
Additional information	: Hazardous waste.

CLOVE BUD OIL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT
Not regulated for transport

TDG

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

CLOVE BUD OIL (8000-34-8)

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

CARYOPHYLLENE (87-44-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EUGENYL ACETATE (93-28-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

Full text of H-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
Skin Sens. 1	Sensitisation — Skin, Category 1
Skin Sens. 1B	Sensitisation — Skin, category 1B
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H317	May cause an allergic skin reaction

CLOVE BUD OIL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

HMIS III Rating

Health	: 0 Minimal Hazard - No significant risk to health
Flammability	: 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
Personal Protection	: B B - Safety glasses, Gloves

SDS US 5.2

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