

# SAFETY DATA SHEET



## Nycote Type I Thinner

### Section 1. Identification

**GHS product identifier** : Nycote Type I Thinner  
**Product code** : Not available.  
**Other means of identification** : Not available.  
**Product type** : Liquid.

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

**Identified uses** : Not available.

**Manufacturer** : Nycote Laboratories Corporation  
 12750 Raymer St., Bldg. A-3  
 North Hollywood, California 91605  
 Tel: 1-(818)764-9498

**Emergency telephone number (with hours of operation)** : ChemTel  
 1-813-248-0585  
 1-800-255-3924  
 24/7

### Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 3  
 ACUTE TOXICITY (oral) - Category 4  
 SKIN CORROSION/IRRITATION - Category 2  
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
 CARCINOGENICITY - Category 2  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : H226 - Flammable liquid and vapor.  
 H302 - Harmful if swallowed.  
 H318 - Causes serious eye damage.  
 H315 - Causes skin irritation.  
 H351 - Suspected of causing cancer.  
 H370 - Causes damage to organs.  
 H335 - May cause respiratory irritation.  
 H336 - May cause drowsiness or dizziness.

## Section 2. Hazards identification

### Precautionary statements

#### Prevention

- : P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
- P242 - Use only non-sparking tools.
- P243 - Take precautionary measures against static discharge.
- P233 - Keep container tightly closed.
- P271 - Use only outdoors or in a well-ventilated area.
- P260 - Do not breathe vapor.
- P270 - Do not eat, drink or smoke when using this product.
- P264 - Wash hands thoroughly after handling.

#### Response

- : P307 + P311 - IF exposed: Call a POISON CENTER or physician.
- P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
- P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.
- P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
- P302 + P352 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.
- P332 + P313 - If skin irritation occurs: Get medical attention.
- P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

#### Storage

- : P405 - Store locked up.
- P403 - Store in a well-ventilated place.
- P235 - Keep cool.

#### Disposal

- : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

#### Hazards not otherwise classified

- : None known.

## Section 3. Composition/information on ingredients

#### Substance/mixture

- : Mixture

#### Other means of identification

- : Not available.

Ingredient name	%	CAS number
Butan-1-ol	30 - 60	71-36-3
Ethanol	30 - 60	64-17-5
4-Methylpentan-2-one	1 - 5	108-10-1
Methanol	1 - 5	67-56-1

United States: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

Canada: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with the amended HPR as of April 2018.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Harmful if swallowed. Can cause central nervous system (CNS) depression.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur

## Section 4. First aid measures

**Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Indication of immediate medical attention and special treatment needed, if necessary

**Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** : No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet or water-based fire extinguishers.

**Specific hazards arising from the chemical** : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

## Section 6. Accidental release measures

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures. Remove contaminated clothing and protective equipment before entering eating areas.

**Conditions for safe storage, including any incompatibilities** : **Store between the following temperatures: 18.33 to 26.67°C (65 to 80°F). Keep from freezing.** Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### United States

#### Occupational exposure limits

## Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Butan-1-ol	<p><b>ACGIH TLV (United States, 3/2017).</b>            TWA: 20 ppm 8 hours.</p> <p><b>NIOSH REL (United States, 10/2016). Absorbed through skin.</b>            CEIL: 50 ppm            CEIL: 150 mg/m<sup>3</sup></p> <p><b>OSHA PEL (United States, 6/2016).</b>            TWA: 100 ppm 8 hours.            TWA: 300 mg/m<sup>3</sup> 8 hours.</p>
Ethanol	<p><b>ACGIH TLV (United States, 3/2017).</b>            STEL: 1000 ppm 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2016).</b>            TWA: 1000 ppm 10 hours.            TWA: 1900 mg/m<sup>3</sup> 10 hours.</p> <p><b>OSHA PEL (United States, 6/2016).</b>            TWA: 1000 ppm 8 hours.            TWA: 1900 mg/m<sup>3</sup> 8 hours.</p>
4-Methylpentan-2-one	<p><b>ACGIH TLV (United States, 3/2017).</b>            TWA: 20 ppm 8 hours.            STEL: 75 ppm 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2016).</b>            TWA: 205 mg/m<sup>3</sup> 10 hours.            STEL: 75 ppm 15 minutes.            STEL: 300 mg/m<sup>3</sup> 15 minutes.            TWA: 50 ppm 10 hours.</p> <p><b>OSHA PEL (United States, 6/2016).</b>            TWA: 100 ppm 8 hours.            TWA: 410 mg/m<sup>3</sup> 8 hours.</p>
Methanol	<p><b>ACGIH TLV (United States, 3/2017). Absorbed through skin.</b>            TWA: 200 ppm 8 hours.            TWA: 262 mg/m<sup>3</sup> 8 hours.            STEL: 250 ppm 15 minutes.            STEL: 328 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2016). Absorbed through skin.</b>            TWA: 200 ppm 10 hours.            TWA: 260 mg/m<sup>3</sup> 10 hours.            STEL: 250 ppm 15 minutes.            STEL: 325 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL (United States, 6/2016).</b>            TWA: 200 ppm 8 hours.            TWA: 260 mg/m<sup>3</sup> 8 hours.</p>

### Canada

#### Occupational exposure limits

Ingredient name	Exposure limits
Butan-1-ol	<p><b>CA Alberta Provincial (Canada, 4/2009).</b>            8 hrs OEL: 60 mg/m<sup>3</sup> 8 hours.            8 hrs OEL: 20 ppm 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 6/2017).</b>            TWA: 15 ppm 8 hours.            C: 30 ppm</p> <p><b>CA Ontario Provincial (Canada, 1/2018).</b>            TWA: 20 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.</b>            STEV: 50 ppm 15 minutes.            STEV: 152 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b>            STEL: 30 ppm 15 minutes.            TWA: 20 ppm 8 hours.</p>
Ethanol	<p><b>CA Alberta Provincial (Canada, 4/2009).</b>            8 hrs OEL: 1000 ppm 8 hours.            8 hrs OEL: 1880 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 6/2017).</b>            STEL: 1000 ppm 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 1/2018).</b>            STEL: 1000 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b></p>

## Section 8. Exposure controls/personal protection

<p>4-Methylpentan-2-one</p>	<p>TWAEV: 1000 ppm 8 hours.          TWAEV: 1880 mg/m<sup>3</sup> 8 hours.  <b>CA Saskatchewan Provincial (Canada, 7/2013).</b>          STEL: 1250 ppm 15 minutes.          TWA: 1000 ppm 8 hours.  <b>CA Alberta Provincial (Canada, 4/2009).</b>          8 hrs OEL: 205 mg/m<sup>3</sup> 8 hours.          8 hrs OEL: 50 ppm 8 hours.          15 min OEL: 75 ppm 15 minutes.          15 min OEL: 307 mg/m<sup>3</sup> 15 minutes.  <b>CA British Columbia Provincial (Canada, 6/2017).</b>          TWA: 20 ppm 8 hours.          STEL: 75 ppm 15 minutes.  <b>CA Ontario Provincial (Canada, 1/2018).</b>          TWA: 20 ppm 8 hours.          STEL: 75 ppm 15 minutes.  <b>CA Quebec Provincial (Canada, 1/2014).</b>          TWAEV: 50 ppm 8 hours.          TWAEV: 205 mg/m<sup>3</sup> 8 hours.          STEV: 75 ppm 15 minutes.          STEV: 307 mg/m<sup>3</sup> 15 minutes.  <b>CA Saskatchewan Provincial (Canada, 7/2013).</b>          STEL: 75 ppm 15 minutes.          TWA: 50 ppm 8 hours.</p>
<p>Methanol</p>	<p><b>CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.</b>          8 hrs OEL: 262 mg/m<sup>3</sup> 8 hours.          8 hrs OEL: 200 ppm 8 hours.          15 min OEL: 250 ppm 15 minutes.          15 min OEL: 328 mg/m<sup>3</sup> 15 minutes.  <b>CA British Columbia Provincial (Canada, 6/2017). Absorbed through skin.</b>          TWA: 200 ppm 8 hours.          STEL: 250 ppm 15 minutes.  <b>CA Ontario Provincial (Canada, 1/2018). Absorbed through skin.</b>          TWA: 200 ppm 8 hours.          STEL: 250 ppm 15 minutes.  <b>CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.</b>          TWAEV: 200 ppm 8 hours.          TWAEV: 262 mg/m<sup>3</sup> 8 hours.          STEV: 250 ppm 15 minutes.          STEV: 328 mg/m<sup>3</sup> 15 minutes.  <b>CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.</b>          STEL: 250 ppm 15 minutes.          TWA: 200 ppm 8 hours.</p>

### Appropriate engineering controls

- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

### Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### Individual protection measures

#### Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.



## Section 8. Exposure controls/personal protection

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid.
- Color** : Clear.
- Odor** : Alcohol-like.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : 90°C (194°F)
- Flash point** : Closed cup: 28.33°C (83°F) [Tagliabue.]
- Evaporation rate** : 1.4 (Butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 3.3%  
Upper: 19%
- Vapor pressure** : 1.1 kPa (8 mm Hg) [room temperature]
- Vapor density** : 1.8 [Air = 1]
- Relative density** : 0.8
- Solubility** : Not miscible.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not available.



## Section 9. Physical and chemical properties

**Flow time (ISO 2431)** : Not available.

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

**Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials, reducing materials, acids and alkalis.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Butan-1-ol	LC50 Inhalation Vapor	Rat	24000 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
Ethanol	LC50 Inhalation Vapor	Rat	124700 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	7 g/kg	-
4-Methylpentan-2-one	LD50 Oral	Rat	2080 mg/kg	-
Methanol	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Butan-1-ol	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Eyes - Severe irritant	Rabbit	-	0.005 ml	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
Ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes	-
				100 mg	
	Eyes - Moderate irritant	Rabbit	-	100 µl	-
4-Methylpentan-2-one	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	400 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 µl	-
	Eyes - Severe irritant	Rabbit	-	40 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

#### Sensitization

There is no data available.

#### Mutagenicity

There is no data available.

#### Carcinogenicity

## Section 11. Toxicological information

### Classification

Product/ingredient name	OSHA	IARC	NTP
4-Methylpentan-2-one	-	2B	-

### Reproductive toxicity

There is no data available.

### Teratogenicity

There is no data available.

### Specific target organ toxicity (single exposure)

Name	Category	Target organs
Butan-1-ol	Category 3	Respiratory tract irritation and Narcotic effects
4-Methylpentan-2-one	Category 3	Respiratory tract irritation
Methanol	Category 1	Not determined

### Specific target organ toxicity (repeated exposure)

There is no data available.

### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Harmful if swallowed. Can cause central nervous system (CNS) depression.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
 pain  
 watering  
 redness
- Inhalation** : Adverse symptoms may include the following:  
 respiratory tract irritation  
 coughing  
 nausea or vomiting  
 headache  
 drowsiness/fatigue  
 dizziness/vertigo  
 unconsciousness
- Skin contact** : Adverse symptoms may include the following:  
 pain or irritation  
 redness  
 blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
 stomach pains

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

## Section 11. Toxicological information

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

### Potential chronic health effects

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	1117.4 mg/kg
Dermal	4340.4 mg/kg
Inhalation (vapors)	94.29 mg/L

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Butan-1-ol	Acute EC50 1983000 µg/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1730000 µg/L Fresh water	Fish - Pimephales promelas	96 hours
Ethanol	Acute EC50 1074 mg/L Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute LC50 5680 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 11000000 µg/L Marine water	Fish - Alburnus alburnus	96 hours
	Chronic NOEC 4.995 mg/L Marine water	Algae - Ulva pertusa	96 hours
4-Methylpentan-2-one	Chronic NOEC 100 µl/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 0.375 µl/L Fresh water	Fish - Gambusia holbrooki - Larvae	12 weeks
	Acute LC50 5050000 µg/L Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 78 mg/L Fresh water	Daphnia - Daphnia magna	21 days
Methanol	Chronic NOEC 168 mg/L Fresh water	Fish - Pimephales promelas - Embryo	33 days
	Acute LC50 2500000 µg/L Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 3289 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 290 mg/L Fresh water	Fish - Danio rerio - Egg	96 hours

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Butan-1-ol	1	-	low
Ethanol	-0.35	-	low
4-Methylpentan-2-one	1.9	-	low
Methanol	-0.77	<10	low

## Section 12. Ecological information

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.





## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

### United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
4-Methylpentan-2-one	108-10-1	Listed	U161
Methanol	67-56-1	Listed	U154
Butan-1-ol	71-36-3	Listed	U031

## Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
<b>UN number</b>	UN1987	UN1987	UN1987	UN1987
<b>UN proper shipping name</b>	ALCOHOLS, N.O.S. (Butan-1-ol, Ethanol)	ALCOHOLS, N.O.S. (Butan-1-ol, Ethanol)	ALCOHOLS, N.O.S. (Butan-1-ol, Ethanol)	ALCOHOLS, N.O.S. (Butan-1-ol, Ethanol)
<b>Transport hazard class(es)</b>	3 	3 	3 	3 
<b>Packing group</b>	III	III	III	III
<b>Environmental hazards</b>	No.	No.	No.	No.

**AERG** : 127

**DOT-RQ Details** : Butan-1-ol 5000 lbs / 2270 kg [740.79 gal / 2804.2 L]

### Additional information

**DOT Classification** : **Reportable quantity** 10000 lbs / 4540 kg [1499.2 gal / 5675 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

## Section 14. Transport information

**TDG Classification** : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).

**IMDG** : **Emergency schedules** F-E, S-D

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

**U.S. Federal regulations** : **United States inventory (TSCA 8b):** All components are listed or exempted.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Listed

**SARA 302/304**

No products were found.

**SARA 304 RQ** : Not applicable.

**SARA 311/312**

**Classification** : FLAMMABLE LIQUIDS - Category 3  
 ACUTE TOXICITY (oral) - Category 4  
 SKIN CORROSION/IRRITATION - Category 2  
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
 CARCINOGENICITY - Category 2  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

**Composition/information on ingredients**

Name	Classification
Butan-1-ol	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Ethanol	FLAMMABLE LIQUIDS - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
4-Methylpentan-2-one	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

## Section 15. Regulatory information

Methanol	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 3 ACUTE TOXICITY (inhalation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
----------	---

### SARA 313


	Product name	CAS number
<b>Form R - Reporting requirements</b>	Butan-1-ol 4-Methylpentan-2-one Methanol	71-36-3 108-10-1 67-56-1
<b>Supplier notification</b>	Butan-1-ol 4-Methylpentan-2-one Methanol	71-36-3 108-10-1 67-56-1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

- Massachusetts** : The following components are listed: Ethanol; 4-Methylpentan-2-one; Methanol; Butan-1-ol
- New York** : The following components are listed: 4-Methylpentan-2-one; Methanol; Butan-1-ol
- New Jersey** : The following components are listed: Ethanol; 4-Methylpentan-2-one; Methanol; Butan-1-ol
- Pennsylvania** : The following components are listed: Ethanol; 4-Methylpentan-2-one; Methanol; Butan-1-ol

### California Prop. 65

 **WARNING:** This product can expose you to chemicals including 4-Methylpentan-2-one, which is known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including 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](http://www.P65Warnings.ca.gov).

### Canada

#### Canadian lists

- Canadian NPRI** : The following components are listed: Ethanol; 4-Methylpentan-2-one; Methanol; Butan-1-ol
- CEPA Toxic substances** : None of the components are listed.
- Canada inventory** : All components are listed or exempted.

## Section 16. Other information

### Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

### History

**Date of issue mm/dd/yyyy** : 05/30/2019

## Section 16. Other information

<b>Date of previous issue</b>	: 10/15/2017
<b>Version</b>	: 7
<b>Prepared by</b>	: KMK Regulatory Services Inc.
<b>Key to abbreviations</b>	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations

### **Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.