

SAFETY DATA SHEET



Nycote Type I Thinner

Section 1. Identification

GHS product identifier : Nycote Type I Thinner

Other means of identification : Not available.

Product code : Not available.

Product type : Liquid.

Identified uses

Not available.

Supplier/Manufacturer : Nycote Laboratories Corporation
12750 Raymer St., Bldg. A-3
North Hollywood, California 91605
Tel: 1-(818)-764-8177

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) (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.
H335 - May cause respiratory irritation.
H336 - May cause drowsiness or dizziness.

Precautionary statements

Section 2. Hazards identification

- 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.
 - P261 - Avoid breathing vapor.
 - P270 - Do not eat, drink or smoke when using this product.
 - P264 - Wash hands thoroughly after handling.
- Response** :
- P308 + P313 - IF exposed or concerned: Get medical attention.
 - 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 (HNOC)

Physical hazards not otherwise classified (PHNOC) : None known.

Health hazards not otherwise classified (HHNOC) : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

CAS number/other identifiers

- CAS number** : Not applicable.
- Product code** : Not available.

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

Section 3. Composition/information on ingredients

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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** : 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. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.
- 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** : Wash out mouth with water. 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. Get medical attention. If necessary, call a poison center or 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.

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

Section 4. First aid measures

- 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

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, CO₂, 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. 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 : 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".
- 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)**. 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

Ingredient name	Exposure limits
Butan-1-ol	<p>ACGIH TLV (United States, 3/2015). TWA: 20 ppm 8 hours.</p> <p>NIOSH REL (United States, 10/2013). Absorbed through skin. CEIL: 150 mg/m³ CEIL: 50 ppm</p> <p>OSHA PEL (United States, 2/2013). TWA: 300 mg/m³ 8 hours. TWA: 100 ppm 8 hours.</p>
Ethyl Alcohol	<p>ACGIH TLV (United States, 3/2015). STEL: 1000 ppm 15 minutes.</p> <p>NIOSH REL (United States, 10/2013). TWA: 1900 mg/m³ 10 hours. TWA: 1000 ppm 10 hours.</p> <p>OSHA PEL (United States, 2/2013). TWA: 1900 mg/m³ 8 hours. TWA: 1000 ppm 8 hours.</p>
Methanol	<p>ACGIH TLV (United States, 3/2015). Absorbed through skin. STEL: 328 mg/m³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 262 mg/m³ 8 hours. TWA: 200 ppm 8 hours.</p> <p>NIOSH REL (United States, 10/2013). Absorbed through skin. STEL: 325 mg/m³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 260 mg/m³ 10 hours. TWA: 200 ppm 10 hours.</p> <p>OSHA PEL (United States, 2/2013). TWA: 260 mg/m³ 8 hours. TWA: 200 ppm 8 hours.</p>
4-Methylpentan-2-one	<p>ACGIH TLV (United States, 3/2015). STEL: 75 ppm 15 minutes. TWA: 20 ppm 8 hours.</p> <p>NIOSH REL (United States, 10/2013). STEL: 300 mg/m³ 15 minutes. STEL: 75 ppm 15 minutes. TWA: 205 mg/m³ 10 hours. TWA: 50 ppm 10 hours.</p> <p>OSHA PEL (United States, 2/2013). TWA: 410 mg/m³ 8 hours. TWA: 100 ppm 8 hours.</p>

Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	Notations
Butan-1-ol	US ACGIH 3/2015	20	-	-	-	-	-	-	-	-	
	AB 4/2009	20	60	-	-	-	-	-	-	-	[3]
	BC 2/2015	15	-	-	-	-	-	30	-	-	
	ON 7/2015	20	-	-	-	-	-	-	-	-	
	QC 1/2014	-	-	-	50	152	-	-	-	-	[1]
Ethyl Alcohol	US ACGIH 3/2015	-	-	-	1000	-	-	-	-	-	
	AB 4/2009	1000	1880	-	-	-	-	-	-	-	
	BC 2/2015	-	-	-	1000	-	-	-	-	-	
	ON 7/2015	-	-	-	1000	-	-	-	-	-	
	QC 1/2014	1000	1880	-	-	-	-	-	-	-	
4-Methylpentan-2-one	US ACGIH 3/2015	20	-	-	75	-	-	-	-	-	
	AB 4/2009	50	205	-	75	307	-	-	-	-	
	BC 2/2015	20	-	-	75	-	-	-	-	-	
	ON 7/2015	50	-	-	75	-	-	-	-	-	
	QC 1/2014	50	205	-	75	307	-	-	-	-	
Methanol	US ACGIH 3/2015	200	262	-	250	328	-	-	-	-	[1]
	AB 4/2009	200	262	-	250	328	-	-	-	-	[1]

Section 8. Exposure controls/personal protection

	BC 2/2015	200	-	-	250	-	-	-	-	-	[1]
	ON 7/2015	200	262	-	250	328	-	-	-	-	[1]
	QC 1/2014	200	262	-	250	328	-	-	-	-	[1]

[1]Absorbed through skin. [3]Skin sensitization

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.

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.

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 : Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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)

Section 9. Physical and chemical properties

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.
Volatility	: 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 ³	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
Ethyl Alcohol	LC50 Inhalation Vapor	Rat	124700 mg/m ³	4 hours
	LD50 Oral	Rat	7 g/kg	-
Methanol	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
4-Methylpentan-2-one	LD50 Oral	Rat	5600 mg/kg	-
	LD50 Oral	Rat	2080 mg/kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Butan-1-ol	Eyes - Severe irritant	Rabbit	-	0.005 mL	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
Ethyl Alcohol	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Eyes - Moderate irritant	Rabbit	-	100 µL	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
Methanol	Eyes - Moderate irritant	Rabbit	-	0.067 minutes 100 mg	-
	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	400 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
4-Methylpentan-2-one	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Moderate irritant	Rabbit	-	40 mg	-
	Eyes - Severe irritant	Rabbit	-	40 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 µL	-

Sensitization

There is no data available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
4-Methylpentan-2-one	-	2B	-	A3	-	-
Methanol	-	-	-	-	-	None.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Butan-1-ol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Ethyl Alcohol	Category 3	Not applicable.	Narcotic effects
Methanol	Category 1	Not determined	Not determined
4-Methylpentan-2-one	Category 3	Not applicable.	Respiratory tract irritation

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

Section 11. Toxicological information

- 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

- 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

Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
Butan-1-ol	Acute EC50 1983000 to 2072000 µg/L Fresh water Acute LC50 1910000 µg/L Fresh water	Daphnia - Daphnia magna Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	48 hours 96 hours
Ethyl Alcohol	Acute EC50 17.921 mg/L Marine water Acute EC50 2000 µg/L Fresh water Acute LC50 25500 µg/L Marine water	Algae - Ulva pertusa Daphnia - Daphnia magna Crustaceans - Artemia franciscana - Larvae	96 hours 48 hours 48 hours
Methanol	Acute LC50 42000 µg/L Fresh water Chronic NOEC 4.995 mg/L Marine water Chronic NOEC 0.375 ul/L Fresh water Acute EC50 16.912 mg/L Marine water Acute EC50 22200 mg/L Fresh water Acute LC50 2500000 µg/L Marine water Acute LC50 290 mg/L Fresh water Chronic NOEC 9.96 mg/L Marine water	Fish - Oncorhynchus mykiss Algae - Ulva pertusa Fish - Gambusia holbrooki - Larvae Algae - Ulva pertusa Daphnia - Daphnia obtusa - Neonate Crustaceans - Crangon crangon - Adult Fish - Danio rerio - Egg Algae - Ulva pertusa	4 days 96 hours 12 weeks 96 hours 48 hours 48 hours 96 hours 96 hours
4-Methylpentan-2-one	Acute LC50 537000 µg/L Fresh water Chronic NOEC mg/L Fresh water Chronic NOEC 168 mg/L Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) Daphnia - Daphnia magna Fish - Pimephales promelas - Embryo	96 hours 21 days 33 days

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Butan-1-ol	1	-	low
Ethyl Alcohol	-0.35	-	low
Methanol	-0.77	<10	low
4-Methylpentan-2-one	1.9	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : There is no data 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

Section 13. Disposal considerations

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

Section 14. Transport information

	DOT	TDG	IMDG	IATA
UN number	UN1987	UN1987	UN1987	UN1987
UN proper shipping name	ALCOHOLS, N.O.S. (Butan-1-ol, Ethyl Alcohol) RQ (Butan-1-ol)	ALCOHOLS, N.O.S. (Butan-1-ol, Ethyl Alcohol)	ALCOHOLS, N.O.S. (Butan-1-ol, Ethyl Alcohol)	ALCOHOLS, N.O.S. (Butan-1-ol, Ethyl Alcohol)
Transport hazard class(es)	3 	3 	3 	3 
Packing group	II	II	II	II
Environmental hazards	No.	No.	No.	No.
Additional information	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.	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).	Emergency schedules (EmS) F-E, S-D	-

AERG : 127

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

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.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 4(a) final test rules:** 4-Methylpentan-2-one
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

Section 15. Regulatory information

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List I Chemicals (Precursor Chemicals) : Listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard
 Immediate (acute) health hazard
 Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Butan-1-ol	30 - 60	Yes.	No.	No.	Yes.	No.
Ethyl Alcohol	30 - 60	Yes.	No.	No.	Yes.	No.
Methanol	1 - 5	Yes.	No.	No.	Yes.	No.
4-Methylpentan-2-one	1 - 5	Yes.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Butan-1-ol	71-36-3	30 - 60
	4-Methylpentan-2-one	108-10-1	1 - 5
	Methanol	67-56-1	1 - 5
Supplier notification	Butan-1-ol	71-36-3	30 - 60
	4-Methylpentan-2-one	108-10-1	1 - 5
	Methanol	67-56-1	1 - 5

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

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
4-Methylpentan-2-one	Yes.	Yes.	No.	No.
Methanol	No.	Yes.	No.	23000 µg/day (ingestion) 47000 µg/day (inhalation)

Section 15. Regulatory information

Canada

Canadian lists

Canadian NPRI : The following components are listed: Butan-1-ol; Ethyl Alcohol; 4-Methylpentan-2-one; Methanol

CEPA Toxic substances : None of the components are listed.

Canada inventory : All components are listed or exempted.

International lists

National inventory

Australia : All components are listed or exempted.

China : All components are listed or exempted.

Europe : All components are listed or exempted.

Japan : All components are listed or exempted.

Malaysia : All components are listed or exempted.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

Section 16. Other information

History

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Prepared by : KMK Regulatory Services Inc.

Notice to reader

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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.