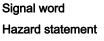


501375 METHYL 2-METHYL BUTYRATE

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1. IDENTIFICATION			
Product Description:	METHYL 2-METHYL BUTY	RATE	
CAS#	868-57-5		
FEMA Number	2719		
Other means of identification Vigon Item #	501375		
Recommended use	Concentrated aromatic and compounds according to lea	-	hich may be used in flavor and fragrance MA GRAS/FDA guidelines.
Recommended restrictions	For Manufacturing Use Only	у	
<u>Company</u>		24 Hour Emergence	y Response Information
Vigon International, Inc.		INFOTRAC (ACCT	
127 Airport Road		1-800-535-5053 W	
E. Stroudsburg, PA 18301		1-352-323-3500 O	UTSIDE THE U.S.A.
For information call: 570-476-6300			
Web Site: www.vigon.com			
Manufacturer/Importer/Supplier/Dis Manufacturer	stributor information		
Company name Address	Vigon International, Inc. 127 Airport Road E. Stroudsburg, PA 18301 United States		
Telephone	For information call:	570-476-6300	
Website	www.vigon.com		
E-mail	regulatory@vigon.com		
Emergency phone number	INFOTRAC 1-800-535-5053 1-352-323-3500	(ACCT# 78928); WITHIN THE U.S OUTSIDE THE U	
2. HAZARD(S) IDENTIFICA	TION		
Physical hazards	Flammable liquids		Category 2
Health hazards	Skin corrosion/irritation		Category 2
	Serious eye damage/eye irr	ritation	Category 2A
Environmental hazards	Not classified.		

Danger



Label elements

Highly flammable liquid and vapor. Causes skin irritation. Causes skin and eye irritation. Causes serious eye irritation.



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Precautionary statement	
Prevention	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Response	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.
Storage	Store in a well-ventilated place. Keep cool.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	100% of the substance consists of component(s) of unknown acute oral toxicity. 100% of the substance consists of component(s) of unknown acute dermal toxicity. 100% of the substance consists of component(s) of unknown acute inhalation toxicity. 100% of the substance consists of component(s) of unknown acute hazards to the aquatic environment. 100% of the substance consists of component(s) of unknown long-term hazards to the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	Common name and synonyms	CAS number	%
METHYL 2-METHYL BUTYRATE	methyl 2-methylbutanoate Butanoic acid, 2-methyl-, methyl ester	868-57-5	100

4. FIRST-AID MEASURES

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Get medical attention if irritation develops and persists. Wash skin thoroughly with soap and water for several minutes.
Eye contact	Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists. Promptly wash eyes with plenty of water while lifting the eye lids.
Ingestion	Call a physician or poison control center immediately. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Not available.



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General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.
5. FIRE-FIGHTING MEASU	IRES
Suitable extinguishing media	Water spray, fog, CO2, dry chemical, or alcohol resistant foam.
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.
Specific hazards arising from the chemical	Fire may produce irritating, corrosive and/or toxic gases.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection. Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage. Ventilate closed spaces before entering them. Keep run-off water out of sewers and water sources. Dike for water control.
Specific methods	Use water spray to cool unopened containers.
General fire hazards	Static charges generated by emptying package in or near flammable vapor may cause flash fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor. Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.
Methods and materials for containment and cleaning up	Collect and dispose of spillage as indicated in section 13 of the SDS.
	Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. Stop the flow of material, if this is without risk.
	Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not allow material to contaminate ground water system.
	Large Spills: Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers.
	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
Environmental precautions	Retain and dispose of contaminated wash water. Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water.

7. HANDLING AND STORAGE

Precautions for safe handling

Do not handle or store near an open flame, heat or other sources of ignition. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling.



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Conditions for safe storage, including any incompatibilities	Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area.	
8. EXPOSURE CONTROLS	/PERSONAL PROTECTION	
Occupational exposure limits	This substance has no PEL, TLV, or other recommended exposure limit.	
Biological limit values	No biological exposure limits noted for the ingredient(s).	
Appropriate engineering controls	Use explosion-proof ventilation equipment to stay below exposure limits.	
Individual protection measures, such as personal protective equipmentEye/face protectionWear safety glasses with side shields (or goggles).		
Skin protection Hand protection	Chemical resistant gloves.	
Other	Not available.	
Respiratory protection	Respiratory protection not required. If ventilation is insufficient, suitable respiratory protection must be provided.	
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.	

General hygiene considerations When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Refer to Spec Sheet	
Physical state	Liquid.	
Form	Liquid.	
Color	Refer to Spec Sheet	
Odor	Characteristic.	
Odor threshold	Not available.	
рН	Not available.	
Melting point/freezing point	Not available.	
Initial boiling point and boiling range	239 - 240.8 °F (115 - 116 °C)	
Flash point	57.0 °F (13.9 °C) Closed Cup	
Evaporation rate	Not available.	
Flammability (solid, gas)	Not applicable.	
Upper/lower flammability or explosive limits		
Flammability limit - lower (%)	Not available.	
Flammability limit - upper (%)	Not available.	
Explosive limit - lower (%)	Not available.	
Explosive limit - upper (%)	Not available.	
Vapor pressure	21.6 mm Hg at 25 °C	



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Vapor density	4
Relative density	Not available.
•	Not available.
Solubility(ies)	
Solubility (water)	Insoluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Flammability class	Flammable IB estimated
Molecular formula	C6H12O2
Molecular weight	116.16 g/mol
-	116.16 g/mol
Oxidizing properties	Not oxidizing.
Specific gravity	0.88 at 25 °C

10. STABILITY AND REACTIVITY

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products if stored and handled as indicated.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure		
Inhalation	Knowledge about health hazard is incomplete.	
Skin contact	Causes skin irritation.	
Eye contact	Causes serious eye irritation. Causes mild eye irritation.	
Ingestion	Knowledge about health hazard is incomplete.	
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.	
Information on toxicological effects		
Acute toxicity	Not known.	
Skin corrosion/irritation	Causes skin irritation.	



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Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Due to partial or complete lack of data the classification is not possible.	
Skin sensitization	Due to partial or complete lack of data the classification is not possible.	
Germ cell mutagenicity	Due to partial or complete lack of data the classification is not possible.	
Carcinogenicity	Due to partial or complete lack of data the classification is not possible.	
IARC Monographs. Overall	Evaluation of Carcinogenicity	
Not listed.		
OSHA Specifically Regulate	d Substances (29 CFR 1910.1001-1053)	
	ogram (NTP) Report on Carcinogens	
Not listed. Reproductive toxicity	Due to partial or complete lack of data the classification is not possible.	
Specific target organ toxicity - single exposure	Due to partial or complete lack of data the classification is not possible.	
Specific target organ toxicity - repeated exposure	Due to partial or complete lack of data the classification is not possible.	
Aspiration hazard	Due to partial or complete lack of data the classification is not possible.	
12. ECOLOGICAL INFOR	MATION	
Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.	
Persistence and degradability	No data is available on the degradability of this substance.	
Bioaccumulative potential	No data available.	
Mobility in soil	No data available.	
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.	

13. DISPOSAL CONSIDERATIONS

Disposal instructions	Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	Not established.
Waste from residues / unused products	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.



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14. TRANSPORT INFORMATION

ADN	
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ADN		
UN	number	3272
UN	proper shipping name	ESTERS, N.O.S. (METHYL 2-METHYL BUTYRATE)
Trai	nsport hazard class(es)	3
Sub	sidiary class(es)	-
Pac	king group	II
Env	ironmental hazards	No
Lab	els required	3
ADR		
UN	number	3272
UN	proper shipping name	ESTERS, N.O.S. (METHYL 2-METHYL BUTYRATE)
Tra	nsport hazard class(es)	3
Sub	sidiary class(es)	-
Pac	king group	II
Env	ironmental hazards	No
Lab	els required	3
RID		
UN	number	3272
UN	proper shipping name	ESTERS, N.O.S. (METHYL 2-METHYL BUTYRATE)
Tra	nsport hazard class(es)	3
	sidiary class(es)	-
	king Group	II
	ironmental Hazards	No
	els required	3
-	cial precautions for user	Read safety instructions, SDS and emergency procedures before handling.
DOT		
BULK		
	number	3272
Pro	per shipping name	ESTERS, N.O.S. (METHYL 2-METHYL BUTYRATE)
	ard class	3
	king group	II
Env	ironmental hazards	
	Marine pollutant	No
Pac	kaging exceptions	150
Pac	kaging bulk	242
Lab	els required	3
DOT		
NON-BU	JLK	
UN	number	3272
Pro	per shipping name	ESTERS, N.O.S. (METHYL 2-METHYL BUTYRATE)
Haz	ard class	3
Pac	king group	II
Env	ironmental hazards	
	Marine pollutant	No



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Packa	aging exceptions aging non bulk s required	150 202 3
IATA	oroquirou	
UN ni	umber	3272
UN pi	roper shipping name	ESTERS, N.O.S. (METHYL 2-METHYL BUTYRATE)
Trans	port hazard class(es)	3
Subsi	diary class(es)	-
Packi	ng group	II
Envire	onmental hazards	No
Label	s required	3
IMDG		
UN ni	umber	3272
UN pi	roper shipping name	ESTERS, N.O.S. (METHYL 2-METHYL BUTYRATE)
Trans	port hazard class(es)	3
Subsi	diary class(es)	-
Packi	ng group	II
Envire	onmental hazards	
Ν	larine pollutant	No
Label	s required	3
to An	port in bulk according nex II of MARPOL and the IBC Code	Not applicable.

ADN; ADR; DOT BULK; DOT NON-BULK; IATA; IMDG; RID



15. REGULATORY INFORMATION

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.



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OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)			
Not listed.			
Superfund Amendments and Rea SARA 302 Extremely hazard Not listed.	, ,		
SARA 311/312 Hazardous chemical	Yes		
Classified hazard categories	Flammable (gases, aerosols, liquids, or solids) Skin corrosion or irritation Serious eye damage or eye irritation Hazard not otherwise classified (HNOC)		
SARA 313 (TRI reporting) Not regulated.			
Other federal regulations			
Clean Air Act (CAA) Section	112 Hazardous Air Pollutants (HAPs) List		
Not regulated. Clean Air Act (CAA) Section Not regulated.	112(r) Accidental Release Prevention (40 CFR 68.130)		
Safe Drinking Water Act (SDWA)	Not regulated.		
16. OTHER INFORMATION	I, INCLUDING DATE OF PREPARATION OR LAST REVISION		
Issue date	11-26-2015		
Revision date	06-03-2020		
Version #	03		
HMIS® ratings	Health: 2 Flammability: 3 Physical hazard: 0		



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Disclaimer

Vigon International, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. The above information relates only to this product and not to its use in combination with any other material or any particular process and is designed only as guidance for the safe handling, use, processing, storage, transportation, and disposal and should not be considered as a guarantee or quality specification. This product has not been evaluated for safe use in e-cigarettes or any vaping application where the product(s) is/are intentionally vaporized and inhaled. Vigon International, Inc. has performed no testing on these products in e-cig/vaping applications. It is the sole responsibility of the individual(s) purchasing this product to assess its' safety in the final application. The above information relates only to this product and not to its use in combination with any other material or any particular process and is designed only as guidance for the safe handling, use, processing, storage, transportation, disposal, and should not be considered as a guarantee or quality specification. The above information is based on data provided by and collected from recognized sources such as distributors, manufacturers, and technical groups and is considered to be accurate to the best of Vigon's knowledge as of the date of this document. It is the responsibility of the user to review all safety information about this product and determine its safety and suitability in their own processes and operations. Appropriate warnings and safe handling procedures should be provided to all handlers and users, taking into account the intended use and the specific conditions and factors relating to such use in accordance with all applicable laws and regulations.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.