

## SAFETY DATA SHEET

### 500185 ISOBUTYL ACETATE FCC

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Version # 05

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#### 1. IDENTIFICATION

Product Description:	ISOBUTYL ACETATE FCC	
CAS #	110-19-0	
FEMA Number	2175	
Other means of identification		
Vigon Item #	500185	
Recommended use	Concentrated aromatic and flavor ingredient which may be used in flavor and fragrance compounds according to legal and IFRA or FEMA GRAS/FDA guidelines. Cosmetic material for FDA regulated product use.	
Recommended restrictions	For Manufacturing Use Only	
Company	<u>24 Hour Emergency Response Information</u>	
Vigon International, Inc.	INFOTRAC (ACCT# 78928);	
127 Airport Road	1-800-535-5053 WITHIN THE U.S.A.	
E. Stroudsburg, PA 18301	1-352-323-3500 OUTSIDE THE U.S.A.	
For information call: 570-476-6300		
Web Site: <a href="http://www.vigon.com">www.vigon.com</a>		
Manufacturer/Importer/Supplier/Distributor information		
Manufacturer		
Company name	Vigon International, Inc.	
Address	127 Airport Road	
	E. Stroudsburg, PA 18301	
	United States	
Telephone	For information call:	570-476-6300
Website	<a href="http://www.vigon.com">www.vigon.com</a>	
E-mail	Not available.	
Emergency phone number	INFOTRAC 1-800-535-5053 1-352-323-3500	(ACCT# 78928); WITHIN THE U.S.A. OUTSIDE THE U.S.A.

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#### 2. HAZARD(S) IDENTIFICATION

Physical hazards	Flammable liquids	Category 2
Health hazards	Specific target organ toxicity, single exposure	Category 3 narcotic effects
Environmental hazards	Not classified.	
Label elements		



Signal word

Danger

Hazard statement

Highly flammable liquid and vapor. May cause drowsiness or dizziness.

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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. Use only outdoors or in a well-ventilated area. 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 INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. In case of fire: Use appropriate media to extinguish.

##### Storage

Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

##### 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 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

#### Substances

Chemical name	Common name and synonyms	CAS number	%
ISOBUTYL ACETATE	BETA-METHYLPROPYL ETHANOATE Acetic acid 2-methylpropyl ester; Isobutyl acetate 2-METHYLPROPYL ACETATE ESTERS OF ACETIC ACID: ISOBUTYL ACETATE β-Methylpropyl ethanoate 2-METHYL-1-PROPYL ACETATE	110-19-0	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

May cause drowsiness and dizziness. Headache. Nausea, vomiting. Direct contact with eyes may cause temporary irritation.

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**Indication of immediate medical attention and special treatment needed**

Not available.

**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.

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## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

Water spray, fog, CO<sub>2</sub>, 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.

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## 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.

The product is immiscible with water and will spread on the water surface.

Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

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). Prevent product from entering drains.

**Large Spills:** Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. 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.

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**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.

**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

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Material	Type	Value
ISOBUTYL ACETATE (CAS 110-19-0)	PEL	700 mg/m <sup>3</sup>
		150 ppm

#### US. ACGIH Threshold Limit Values

Material	Type	Value
ISOBUTYL ACETATE (CAS 110-19-0)	STEL	150 ppm
	TWA	50 ppm

#### US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value
ISOBUTYL ACETATE (CAS 110-19-0)	TWA	700 mg/m <sup>3</sup>
		150 ppm

### 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. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Adequate ventilation should be provided so that exposure limits are not exceeded.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

#### Skin protection

**Hand protection** Chemical resistant gloves.

**Other** Wear suitable protective clothing.

**Respiratory protection** Respiratory protection not required. If ventilation is insufficient, suitable respiratory protection must be provided.

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**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.

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### 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.

**pH** Not available.

**Melting point/freezing point** -145.84 °F (-98.8 °C)

**Initial boiling point and boiling range** 241.7 °F (116.5 °C)

**Flash point** 60.0 °F (15.6 °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** 10 mm Hg at 12.8 °C

**Vapor density** 4

**Relative density** Not available.

**Solubility(ies)**

**Solubility (water)** Insoluble

**Partition coefficient  
(n-octanol/water)** 1.78

**Auto-ignition temperature** 793.4 °F (423 °C)

**Decomposition temperature** Not available.

**Viscosity** Not available.

**Other information**

**Density** 0.87 g/cm3 estimated at 20 °C

**Explosive properties** Not explosive.

**Flammability class** Flammable IB estimated

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Molecular formula	C6-H12-O2
Molecular weight	116.16 g/mol
Oxidizing properties	Not oxidizing.
Specific gravity	0.87 at 20 °C
Surface tension	23.7 mN/m (68 °F (20 °C))

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## 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. Nitrates.
Hazardous decomposition products	No hazardous decomposition products if stored and handled as indicated.

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## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Knowledge about health hazard is incomplete.
Eye contact	Knowledge about health hazard is incomplete.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	May cause drowsiness and dizziness. Headache. Nausea, vomiting.

### Information on toxicological effects

Acute toxicity	Not known.
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Product	Species	Test Results
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### ISOBUTYL ACETATE (CAS 110-19-0)

Acute		
<i>Dermal</i>		
LD50	Rabbit	> 17400 mg/kg
<i>Oral</i>		
LD50	Rat	13400 mg/kg
Skin corrosion/irritation		Due to partial or complete lack of data the classification is not possible.
Serious eye damage/eye irritation		Due to partial or complete lack of data the classification is not possible.
Respiratory or skin sensitization		
Respiratory sensitization		Due to partial or complete lack of data the classification is not possible.

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<b>Skin sensitization</b>	Due to partial or complete lack of data the classification is not possible.
<b>Germ cell mutagenicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>Carcinogenicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	
Not listed.	
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>	
Not listed.	
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>	
Not listed.	
<b>Reproductive toxicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>Specific target organ toxicity - single exposure</b>	May cause drowsiness and dizziness.
<b>Specific target organ toxicity - repeated exposure</b>	Due to partial or complete lack of data the classification is not possible.
<b>Aspiration hazard</b>	Due to partial or complete lack of data the classification is not possible.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	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.
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Product	Species	Test Results
ISOBUTYL ACETATE (CAS 110-19-0)		
<b>Aquatic</b>		
Crustacea	LC50	Water flea (Daphnia magna) 250 mg/l, 24 hours
Fish	LC50	Carp (Leuciscus idus melanotus) 101 mg/l, 48 hours
<b>Persistence and degradability</b>		
No data is available on the degradability of this substance.		
<b>Bioaccumulative potential</b>		
<b>Partition coefficient n-octanol / water (log Kow)</b>		
1.78		
<b>Mobility in soil</b>	No data available.	
<b>Other adverse effects</b>	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

<b>Disposal instructions</b>	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.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	Not established.
<b>Waste from residues / unused products</b>	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).



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**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.

## 14. TRANSPORT INFORMATION

### ADN

UN number	1213
UN proper shipping name	ISOBUTYL ACETATE
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	II
Environmental hazards	No
Labels required	3

### ADR

UN number	1213
UN proper shipping name	ISOBUTYL ACETATE
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	II
Environmental hazards	No
Labels required	3

### RID

UN number	1213
UN proper shipping name	ISOBUTYL ACETATE
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing Group	II
Environmental Hazards	No
Labels required	3
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

### DOT

### BULK

UN number	1213
Proper shipping name	ISOBUTYL ACETATE
Hazard class	3
Packing group	II
Environmental hazards	
Marine pollutant	No
Packaging exceptions	150
Packaging bulk	242
Reportable quantity	5000
Labels required	3

### DOT

### NON-BULK

UN number	1213
Proper shipping name	ISOBUTYL ACETATE

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Hazard class	3
Packing group	II
Environmental hazards	
Marine pollutant	No
Packaging exceptions	150
Packaging non bulk	202
Reportable quantity	5000
Labels required	3

#### IATA

UN number	1213
UN proper shipping name	ISOBUTYL ACETATE
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	II
Environmental hazards	No
Labels required	3

#### IMDG

UN number	1213
UN proper shipping name	ISOBUTYL ACETATE
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	II
Environmental hazards	
Marine pollutant	No
Labels required	3

Transport in bulk according  
to Annex II of MARPOL  
73/78 and the IBC Code

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)



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

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

ISOBUTYL ACETATE (CAS 110-19-0)

Listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

##### SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

Classified hazard categories

Flammable (gases, aerosols, liquids, or solids)

Specific target organ toxicity (single or repeated exposure)

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 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Clean Water Act (CWA)  
Section 112(r) (40 CFR  
68.130)

Hazardous substance

Safe Drinking Water Act  
(SDWA)

Not regulated.

#### FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

ISOBUTYL ACETATE (CAS 110-19-0)

Low priority

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## 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Issue date 11-25-2015

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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.