

### I-002360 ISOAMYL ALCOHOL NATURAL

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#### 1. IDENTIFICATION

Product Description: ISOAMYL ALCOHOL NATURAL

CAS # ISOMER MIXTURE

Other means of identification

**Vigon Item #** I-002360

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.

**Recommended restrictions** For Manufacturing Use Only

Company 24 Hour Emergency Response Information

Vigon International, Inc. INFOTRAC (ACCT# 78928);

127 Airport Road 1-800-535-5053 WITHIN THE U.S.A. 1-352-323-3500 OUTSIDE THE U.S.A.

E. Stroudsburg, PA 18301

For information call: 570-476-6300 Web Site: www.vigon.com

### 2. HAZARD(S) IDENTIFICATION

Physical hazardsFlammable liquidsCategory 3Health hazardsAcute toxicity, oralCategory 4

Acute toxicity, dermal Category 5
Acute toxicity, inhalation Category 4
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 1

Specific target organ toxicity, single Category 3 respiratory tract irritation

exposure

Specific target organ toxicity, single Category 3 narcotic effects

exposure

Environmental hazards Not classified.

Label elements



Signal word Danger

Hazard statement

H226 Flammable liquid and vapor.
H302 + H332 Harmful if swallowed or if inhaled.
H313 May be harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.



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#### Precautionary statement

recautionary statement		
Prevention		
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.	
P233	Keep container tightly closed.	
P240	Ground/bond container and receiving equipment.	
P241	Use explosion-proof electrical/ventilating/lighting equipment.	
P242	Use only non-sparking tools.	
P243	Take precautionary measures against static discharge.	
P261	Avoid breathing mist or vapor.	
P264	Wash thoroughly after handling.	
P270	Do not eat, drink or smoke when using this product.	
P271	Use only outdoors or in a well-ventilated area.	
P280	Wear protective gloves/eye protection/face protection.	
Response		
P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.	
P303 + P361 +		
P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with	
	water/shower.	
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	
P305 + P351 +		
P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P310	Immediately call a POISON CENTER/doctor.	
P321	Specific treatment (see this label).	
P330	Rinse mouth.	
P332 + P313	If skin irritation occurs: Get medical advice/attention.	
P362 + P364	Take off contaminated clothing and wash it before reuse.	
P370 + P378	In case of fire: Use appropriate media to extinguish.	
Storage		
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.	
P403 + P235	Store in a well-ventilated place. Keep cool.	
P405	Store locked up.	
Disposal		
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.	

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental information None.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### **Mixtures**

Hazar	dous	com	ponents
ı ıazaı	uvus	COLL	

Chemical name	CAS number	%
ISOAMYL ALCOHOL	123-51-3	65 - < 90
2-METHYLBUTAN-1-OI	137-32-6	15 - < 25



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#### 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

Coughing. Diarrhea. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of nose and throat. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special treatment

needed

**General information** 

Not available.

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 MEASURES

Suitable extinguishing media

Unsuitable extinguishing media

Specific hazards arising from

the chemical

Water spray, fog, CO2, dry chemical, or alcohol resistant foam.

Do not use a solid water stream as it may scatter and spread fire.

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

Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor.

Methods and materials for containment and cleaning up

Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Clean surface thoroughly to remove residual contamination. Collect and dispose of spillage as indicated in section 13 of the SDS. Never return spills in original containers for re-use.



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**Environmental precautions** 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. Retain

and dispose of contaminated wash 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)

Components	Туре	Value	
ISOAMYL ALCOHOL (CAS	PEL	360 mg/m3	
123-51-3)			
		100 ppm	
US. ACGIH Threshold Limit Values			
Components	Туре	Value	
ISOAMYL ALCOHOL (CAS	STEL	125 ppm	
123-51-3)			
	TWA	100 ppm	
US. NIOSH: Pocket Guide to Chemi	cal Hazards		
Components	Туре	Value	
ISOAMYL ALCOHOL (CAS	STEL	450 mg/m3	

123-51-3) 125 ppm **TWA** 360 mg/m3

No biological exposure limits noted for the ingredient(s).

**Biological limit values** Appropriate engineering controls

Use explosion-proof ventilation equipment to stay below exposure limits. Good general ventilation (typically 10 air changes per hour) 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

100 ppm

not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Avoid contact with eyes.

Skin protection

Hand protection Chemical resistant gloves.

Other Use of an impervious apron is recommended.

Respiratory protection Chemical respirator with organic vapor cartridge and full facepiece.



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Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using do not smoke. Keep away from food and drink. 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

Refer to Spec Sheet **Appearance** 

Physical state Liquid. Liquid. **Form** 

Color Refer to Spec Sheet

Odor Characteristic. Odor threshold Not available. Not available. Melting point/freezing point Not available. Not available.

Initial boiling point and boiling

range

Flash point

102.0 °F (38.9 °C) Closed Cup

**Evaporation rate** Not available. Flammability (solid, gas) Not available.

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. 2 mm Hg at 25 °C Vapor pressure

Vapor density 3.1

Relative density Not available.

Solubility(ies)

Solubility (water) Insoluble Partition coefficient Not available.

(n-octanol/water)

Not available. Auto-ignition temperature **Decomposition temperature** Not available. Viscosity Not available.

Other information

Molecular formula C5H12O Molecular weight 88.15 g/mol Specific gravity 0.81 at 25 °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. 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

**Ingestion** Harmful if swallowed.

Inhalation Harmful if inhaled. May cause drowsiness and dizziness. Headache. Nausea, vomiting.

**Skin contact** May be harmful in contact with skin. Causes skin irritation.

**Eye contact** Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics

Coughing. Diarrhea. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of nose and throat. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin

irritation. May cause redness and pain. May cause respiratory irritation.

#### Information on toxicological effects

Acute toxicity In high concentrations, vapors are anesthetic and may cause headache, fatigue, dizziness and

central nervous system effects. Harmful if inhaled. Harmful if swallowed. May be harmful in

1677.4193 mg/kg estimated

contact with skin. Narcotic effects. May cause respiratory irritation.

Product Species Test Results

ISOAMYL ALCOHOL (CAS ISOMER MIXTURE)

Acute

Dermal

LD50 Rabbit 5122.5806 mg/kg estimated

Oral

LD50 Rabbit 4387.0967 mg/kg estimated

Components Species Test Results

Rat

#### 2-METHYLBUTAN-1-OL (CAS 137-32-6)

Dermal

LD50 Rabbit 2.89 g/kg

Oral

LD50 Rat 4.17 g/kg



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Components Species Test Results

ISOAMYL ALCOHOL (CAS 123-51-3)

Acute

Dermal

LD50 Rabbit 3970 mg/kg

Oral

LD50 Rabbit 3400 mg/kg

Rat 1300 mg/kg

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Causes skin irritation.

Serious eye damage/eye

Causes serious eye damage.

irritation

Respiratory or skin sensitization

**Respiratory sensitization** Not available.

**Skin sensitization** This product is not expected to cause skin sensitization.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

**Reproductive toxicity**This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

May cause respiratory irritation. May cause drowsiness and dizziness.

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard Not available.

**Chronic effects** Prolonged inhalation may be harmful.

12. ECOLOGICAL INFORMATION

**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.

Product Species Test Results

ISOAMYL ALCOHOL (CAS ISOMER MIXTURE)

Aquatic

Acute

Crustacea EC50 Daphnia 335.4839 mg/l, 48 hours estimated



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Components		Species	Test Results
ISOAMYL ALCOHOL	(CAS 123-51-3)		
Aquatic			
Acute			
Algae	LC50	Green algae (Desmodesmus subspicatus)	490 mg/l, 72 hours
Crustacea	EC50	Daphnia magna	260 mg/l, 48 hours

<sup>\*</sup> Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

2-METHYLBUTAN-1-OL 1.29 ISOAMYL ALCOHOL 1.16

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**Empty containers should be taken to an approved waste handling site for recycling or disposal.

Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

### 14. TRANSPORT INFORMATION

#### **ADN**

UN number 1105

UN proper shipping name PENTANOLS

Transport hazard class(es) 3
Subsidiary class(es) Packing group III
Environmental hazards No
Labels required 3

Special precautions for user Not available.

ADR

UN number 1105

UN proper shipping name PENTANOLS



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Transport hazard class(es) 3
Subsidiary class(es) Packing group III
Environmental hazards No
Tunnel restriction code D/E
Labels required 3

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

**RID** 

UN number 1105

UN proper shipping name PENTANOLS

Transport hazard class(es) 3
Subsidiary class(es) Packing group III
Environmental hazards No
Labels required 3

**Special precautions for user** Not available.

DOT

**BULK** 

UN number 1105

Proper shipping name PENTANOLS

Hazard class 3
Packing group III

Special precautions Read safety instructions, SDS and emergency procedures before handling.

Special provisions B1, B3, IB3, T2, TP1

Packaging exceptions 150
Packaging non bulk 203
Packaging bulk 242

DOT

**NON-BULK** 

Not regulated as dangerous goods.

**IATA** 

UN number 1105

UN proper shipping name PENTANOLS

Transport hazard class(es) 3
Subsidiary class(es) Packing group III

**Environmental hazards** Not available.

Labels required 3 ERG code 3L

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number 1105 UN proper shipping name PENTANOLS

Transport hazard class(es) 3



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Subsidiary class(es) - Packing group ||||

**Environmental hazards** 

Marine pollutant No Labels required 3

EmS F-E, S-D

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according

Not applicable.

to Annex II of MARPOL 73/78

and the IBC Code

ADN; ADR; DOT 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.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

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

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous No

chemical



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#### 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.

Safe Drinking Water Act Not regulated.

(SDWA)

#### US state regulations

US - Minnesota Haz Subs: Hazardous substance

ISOAMYL ALCOHOL (CAS 123-51-3) Hazardous substance.

US. Massachusetts RTK - Substance List

2-METHYLBUTAN-1-OL (CAS 137-32-6) ISOAMYL ALCOHOL (CAS 123-51-3)

US. New Jersey Worker and Community Right-to-Know Act

ISOAMYL ALCOHOL (CAS 123-51-3) Listed.

US. Pennsylvania Worker and Community Right-to-Know Law

2-METHYLBUTAN-1-OL (CAS 137-32-6) ISOAMYL ALCOHOL (CAS 123-51-3)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

#### International Inventories

0-----

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes



# SAFETY DATA SHEET I-002360 ISOAMYL ALCOHOL NATURAL

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Country(s) or region Inventory name On inventory (yes/no)\*

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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

 Issue date
 07-24-2014

 Revision date
 07-24-2014

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HMIS® ratings Health: 3\*

Flammability: 2 Physical hazard: 0

Disclaimer

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, 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.