SAFETY DATA SHEET

1. IDENTIFICATION AND GENERAL INFORMATION

P/N#:	**0201**
Nomenclature:	**Banana Oil (Ampules)** Isoamyl acetate

Recommended Use of the Chemical & Restrictions on Use:

Uses:	Laboratory chemicals, Synthesis of substances
Restrictions On Use:	N/A
Company Name:	Allegro Industries
Address:	1360 Shiloh Church Rd Piedmont, SC 29673 864-846-8740
Emergency #:	Chemtrec: 800-424-9300

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 3), H226

Short-term (acute) aquatic hazard (Category 3), H402

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word Warning

Hazard statement(s)

H226	Flammable liquid and vapor.
H402	Harmful to aquatic life.

Precautionary statement(s)

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.
P273	Avoid release to the environment
P280	Wear protective gloves/ eye protection/ face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403 + P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Repeated exposure may cause skin dryness or cracking.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms	Isopentyl acetate Acetic acid 3-methylbutyl ester Isoamyl acetate
Formula	C7H14O2
Molecular weight	130.18 g/mol
CAS-No.	123-92-2
EC-No.	204-662-3
Index-No.	607-130-00-2

Hazardous components

Component	Classification	Concentration
Isoamyl acetate	Flam. Liq. 3; Aquatic acute 3; H226, H402	<= 100%

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice
Show this safety data sheet to the doctor in attendance.
If inhaled
After inhalation: fresh air.
In case of skin contact
Take off immediately all contaminated clothing. Rinse skin with water/ shower.
In case of eye contact
After eye contact: rinse out with plenty of water. Remove contact lenses.
If swallowed
After swallowing: Immediately make victim drink water (two glasses at most).

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media
For this substance/ mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides
Combustible.
Vapors are heavier than air and may spread along floors.
Forms explosive mixtures with air at elevated temperatures.
Development of hazardous combustion gases of vapors possible in the event of fire.

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water systems.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate vemtilation.
Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind and pump off spills. Observe possible material restrictions (see sections 7 and 10).
Take up with liquid-absorbent material (e.g. Chemizor®).
Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on protection against fir and explosion
Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.
Hygiene measures
Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition

Storage class

Storage class (TRGS 510): 3: Flammable liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control Parameters	Basis
Isoamyl acetate	123-92-2	TWA	100 ppm 525 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	100 ppm 525 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	50 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	100 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	100 ppm 532 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		PEL	50 ppm 266 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

8.2 Exposure controls

Appropriate engineering controls

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Splash contact
Material: butyl-rubber
Minimum layer thickness: 0.3 mm
Break through time: 60 min
Material tested:Butoject® (KCL 897 / Aldrich Z677647, Size M)
data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when vapors/ aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: liquid Color: colorless
b)	Odor	fruity
c)	Odor Threshold	0.015 ppm
d)	pH	No data available

e)	Melting point/freezing point	Melting point/range: -78 °C (-108 °F) - lit.
f)	Initial boiling point and boiling range	142 °C 288 °F at 1,008 hPa - lit.
g)	Flash point	33 °C (91 °F) - closed cup
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	Upper explosion limit: 7.5 %(V) Lower explosion limit: 1 %(V)
k)	vapor pressure	5.99 hPa at 20 °C (68 °F)
l)	vapor density	4.5
m)	Density	0.876 g/cm3 at 25 °C (77 °F)-lit.
	Relative density	No data available
n)	Water solubility	2 g/l at 25 °C (77 °F)
o)	Partition coefficient: n-octanol/water	log Pow: 2.7 at 35 °C (95 °F) - Bioaccumulation is not expected.
p)	Auto-ignition temperature	379 °C (714 °F) at 1,013.25 hPa
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	None

9.2 Other safety information

Relative vapor density	4.5

10. STABILITY AND REACTIVITY

10.1 Reactivity

Vapor/ air-mixtures are explosive at intense warming.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of Hazardous Reactions:

Violent reactions possible with:
Alkali metals
Oxidizing agents

10.4 Conditions to avoid

Heating

10.5 Incompatible materials

rubber, various plastics

10.6 Hazardous decomposition products

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rabbit - 7,400 mg/kg
Remarks: (ECHA)
Inhalation: No data available
LD50 Dermal: -Rat - ≥ 5,000 mg/kg
Remarks: (RTECS)

Skin corrosion/irritation

Skin - Rabbit
Result: No skin irritation - 4 h
(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit
Result: No eye Irritation - 24 h
(OECD Test Guideline 405)

Respiratory or skin sensitisation

Maximization Test - Guinea pig
Result: negative
(OECD Test Guideline 406)

Germ cell mutagenicity
Test Type: Ames test
Test system: S. typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Carcinogenicity

IARC:	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP:	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
RTECS: NS9800000

Contact with eyes can cause:, Redness, Blurred vision, Provokes tears., sore throat, Abdominal pain, Nausea, Vomiting, Dizziness, Drowsiness, Cough, chest pain, Difficulty in breathing
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	static test LC50 - Danio rerio (zebra fish) - 22 - 46 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	EC50- Daphnia magna Straus (Water flea) 42 mg/l - 48 h (DIN 38412)
Toxicity to algae	static test ErC50 - Desmodesmus subspicatus (green algae) - > 100 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria	NOEC - activated sludge - ca. 300 mg/l - 30 min (OECD Test Guideline 209)

12.2 Persistence and degradability
Biodegradability — Result: - Readily biodegradable.

12.3 Bioaccumulative potential
No bioaccumulation is to be expected (log Pow <= 4).

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects
No data available

12.7 Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Waste material must be diposed of in accordance with the national and local regulations. Leave chemicals in original containers.
No mixing with other waste. Handle uncleaned containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us here if you have further questions.

14. TRANSPORT INFORMATION

DOT: (US)

UN-Number:	1104 Class: 3	Packing group: III	
Proper Shipping Name:	Amyl acetates		
Reportable Quantity (RQ):	5000 lbs.		
Poison Inhalation Hazard:	No		

IMDG

UN-Number:	1104 Class: 3	Packing group: III	EMS-No: F-E, S-D
Proper Shipping Name:	Amyl acetates		

IATA

UN-Number:	1104 Class:3	Packing group: III
Proper Shipping Name:	Amyl acetates	

15. REGULATORY INFORMATION

SARA 302 Components
This material does not contain any components with a section 302 EHS TPQ.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Fire Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Isoamyl acetate	123-92-2	1993-02-16

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Isoamyl acetate	123-92-2	1993-02-16

16. OTHER INFORMATION

Further information
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.
The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Allegro Industries and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.allegrosafety.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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