

SAFETY DATA SHEET

(GHS, Appendix 4)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : Isononyl Acetate

EC N° : 261-245-9

CAS N° : 58430-94-7

1.2. Relevant identified uses of the substance or mixture and uses advised against

Industrial-grade aromatic raw material, not intended for retail sale

1.3. Details of the supplier of the safety data sheet

Registered company name : Aromatics Original Material Co., Ltd.

Address : 3/8 1st floor Bangwaek Rd, Bangpai, Bangkae, Bangkok 10160 Thailand.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

GHS compliant.

Flammable liquid, Category 4 (Flam. Liq. 4, H227).

Acute oral toxicity, Category 5 (Acute Tox. 5, H303).

Hazardous to the aquatic environment - Acute hazard, Category 2 (Aquatic Acute 2, H401).

Hazardous to the aquatic environment - Chronic hazard, Category 2 (Aquatic Chronic 2, H411).

2.2. Label elements

GHS compliant.

Hazard pictograms :



GHS09

Signal Word :

WARNING

Product identifier (list of classified components):

CAS 58430-94-7 3,5,5-TRIMETHYLHEXYL ACETATE

Hazard statements :

H227 Combustible liquid.

H303 May be harmful if swallowed.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements - Prevention :

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

Precautionary statements - Response :

P312 Call a POISON CENTER/doctor/... if you feel unwell.

P391 Collect spillage.

Precautionary statements - Storage :

P403 + P235 Store in a well-ventilated place. Keep cool.

Precautionary statements - Disposal :

P501 Dispose of contents/container to ...

2.3. Other hazards

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Composition :

Identification	Classification GHS	Note	%
CAS: 58430-94-7 EC: 261-245-9 REACH: 01-2119972325-34-0000 3,5,5-TRIMETHYLHEXYL ACETATE	GHS09 Wng Flam. Liq. 4, H227 Acute Tox. 5, H303 Aquatic Acute 2, H401 Aquatic Chronic 2, H411		100%
CAS: 64-19-7 EC: 200-580-7 ACETIC ACID	GHS05 Dgr Acute Tox. 5, H303 Skin Corr. 1A, H314 Eye Dam. 1, H318	[i]	0 <= x % < 1
CAS: 100-52-7 EC: 202-860-4 REACH: 01-2119455540-44-0000 BENZALDEHYDE	GHS07, GHS08, GHS09 Wng Flam. Liq. 4, H227 Acute Tox. 4, H302 Acute Tox. 5, H313 Skin Irrit. 3, H316 Eye Irrit. 2, H319 Acute Tox. 4, H332 STOT SE 3, H335 Repr. 2, H361 Aquatic Acute 2, H401 Aquatic Chronic 2, H411	[i] [ii]	0 <= x % < 1
INDEX: 601-021-00-3 CAS: 108-88-3 EC: 203-625-9 REACH: 01-2119471310-51-0000 TOLUENE	GHS02, GHS08, GHS07 Dgr Flam. Liq. 2, H225 Repr. 2, H361 Asp. Tox. 1, H304 STOT RE 2, H373 Skin Irrit. 2, H315 STOT SE 3, H336	[i] [ii]	0 <= x % < 1

Information on ingredients :

[i] Substance for which maximum workplace exposure limits are available.

[ii] Carcinogenic, mutagenic or reprotoxic (CMR) substance.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures**In the event of splashes or contact with eyes :**

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

In the event of swallowing :

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water, administer activated medical charcoal and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Flammable.

Combustible liquid.

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

5.1. Extinguishing media

Keep packages near the fire cool, to prevent pressurised containers from bursting.

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- water with AFFF (Aqueous Film Forming Foam) additive

Prevent the effluent of fire-fighting measures from entering drains or waterways.

Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

5.3. Advice for firefighters

Fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

SECTION 6 : ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Consult the safety measures listed under headings 7 and 8.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures

Use drums to dispose of collected waste in compliance with current regulations (see section 13).

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the substance is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

Remove contaminated clothing and protective equipment before entering eating areas.

Fire prevention :

Handle in well-ventilated areas.

Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Prevent the accumulation of electrostatic charges with connections to earth.

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Do not use tools which may produce sparks. Do not smoke.

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the substance is used.

Never open the packages under pressure.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from food and drink, including those for animals.

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight.

Avoid accumulation of electrostatic charges.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters****Occupational exposure limits :**

- European Union :

CAS	VME-mg/m ³ :	VME-ppm :	VLE-mg/m ³ :	VLE-ppm :	Notes :
64-19-7 ACETIC ACID	25	10	50	20	-
108-88-3 TOLUENE	192	50	384	100	-

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
64-19-7 ACETIC ACID	10 ppm 25 mg/m ³	15 ppm 37 mg/m ³			
108-88-3 TOLUENE	20 ppm				

- France :

CAS	VME-ppm :	VME-mg/m ³ :	VLE-ppm :	VLE-mg/m ³ :	Notes :	TMP No :
64-19-7 ACETIC ACID	10	25	20	50	VLRI	
108-88-3 TOLUENE	20	76,8	100	384	VLRC	84,4 BIS

- Switzerland :

CAS	VME	VLE	Valeur plafond	Notations
64-19-7 ACETIC ACID	10 ppm 25 mg/m ³	20 ppm 50 mg/m ³		
108-88-3 TOLUENE	50 ppm 190 mg/m ³	200 ppm 760 mg/m ³		

- South Africa / DME (Department of Minerals and Energy) :

- South Africa / DOL RL (Department of Labour, Recommended limits) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
64-19-7 ACETIC ACID	20 ppm	30 ppm			
108-88-3 TOLUENE	40 ppm				

- Australia :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
64-19-7 ACETIC ACID	10 ppm 25 mg/m ³	15 ppm 37 mg/m ³			
108-88-3 TOLUENE	20 ppm 75 mg/m ³				

- Canada / Alberta :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
64-19-7 ACETIC ACID	10 ppm 25 mg/m ³	15 ppm 37 mg/m ³			
108-88-3 TOLUENE	50 ppm 188 mg/m ³				

- Canada / British Colombia :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
64-19-7 ACETIC ACID	10 ppm	15 ppm			
108-88-3 TOLUENE	20 ppm				

- Canada / Manitoba :

- Canada / Ontario :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
64-19-7 ACETIC ACID	10 ppm	15 ppm			
100-52-7 BENZALDEHYDE		4 ppm 17 mg/m ³			
108-88-3 TOLUENE	20 ppm				

- Canada / Quebec :

- China :

CAS	TWA :	STEL :	Anm :	TWA :	STEL :
64-19-7 ACETIC ACID	10 mg/m ³	20 mg/m ³			
108-88-3 TOLUENE	50 mg/m ³	100 mg/m ³			

- Ireland :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
64-19-7 ACETIC ACID	10 ppm 25 mg/m ³	20 ppm 50 mg/m ³			
108-88-3 TOLUENE	50 ppm 192 mg/m ³	100 ppm 384 mg/m ³			

- Japan :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
64-19-7 ACETIC ACID	10 ppm 25 mg/m ³				
108-88-3 TOLUENE	50 ppm 188 mg/m ³				

- New Zealand :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
64-19-7 ACETIC ACID	10 ppm 25 mg/m ³	15 ppm 37 mg/m ³			
108-88-3 TOLUENE	20 ppm 75 mg/m ³	100 ppm 377 mg/m ³			

- UK :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
64-19-7 ACETIC ACID	10 ppm 25 mg/m ³	20 ppm 50 mg/m ³			
108-88-3 TOLUENE	50 ppm 191 mg/m ³	100 ppm 384 mg/m ³			

- Thailand :

- Turkey :

- USA / NIOSH IDLH (National Institute for Occupational Safety and Health, Immediately Dangerous to Life or Health Concentrations) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
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64-19-7 ACETIC ACID	10 ppm	15 ppm			
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- USA / OSHA PEL (Occupational Safety and Health Administration, Permissible Exposure Limits) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
64-19-7 ACETIC ACID	10 ppm 25 mg/m ³				
108-88-3 TOLUENE	200 ppm				

- Vietnam :

- USA / AIHA WEEL (American Industrial Hygiene Association, Workplace Environmental Exposure Limit) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
100-52-7 BENZALDEHYDE	2 ppm		4 ppm		

- Morocco :

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles in accordance with standard ISO 16321.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- PVA (Polyvinyl alcohol)

- Butyl Rubber (Isobutylene-isoprene copolymer)

- Body protection

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

No data available.

Physical state

Physical state :

Fluid liquid.

Colour

Unspecified	
Odour	
Odour threshold :	Not stated.
Melting point	
Melting point/melting range :	Not specified.
Freezing point	
Freezing point / Freezing range :	Not stated.
Boiling point or initial boiling point and boiling range	
Boiling point/boiling range :	Not specified.
Flammability	
Combustible.	
Lower and upper explosion limit	
Explosive properties, lower explosivity limit (%) :	Not stated.
Explosive properties, upper explosivity limit (%) :	Not stated.
Flash point	
Flash Point :	71.00 °C. Method for determining the flash point: ASTM D 93-15 (Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester).
Auto-ignition temperature	
Self-ignition temperature :	Not specified.
Decomposition temperature	
Decomposition point/decomposition range :	Not specified.
pH	
pH :	Not relevant.
pH (aqueous solution) :	Not stated.
Kinematic viscosity	
Viscosity :	Not stated.
Solubility	
Water solubility :	Insoluble.
Fat solubility :	Not stated.
Partition coefficient n-octanol/water (log value)	
Partition coefficient: n-octanol/water :	Not stated.
Vapour pressure	
Vapour pressure (50°C) :	Not stated.
Density and/or relative density	
Density :	0,848-0,888@20°C Method for determining the density :

NF ISO 279:1999 (T75-111).

Relative vapour density

Vapour density :

Not stated.

9.2. Other information

Index of refraction :

1,418-1,438@20°C

Method of determining the refractive index :

NF ISO 280:1999 (T75-112)

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

SECTION 10 : STABILITY AND REACTIVITY**10.1. Reactivity**

No data available.

10.2. Chemical stability

This substance is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the substance can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

10.4. Conditions to avoid

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Avoid :

- accumulation of electrostatic charges.
- flames and hot surfaces

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

SECTION 11 : TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects****11.1.1. Substances****a) Acute toxicity :**

BENZALDEHYDE (CAS: 100-52-7)

Oral route :

LD50 = 1430 mg/kg body weight

ACETIC ACID (CAS: 64-19-7)

Oral route :

LD50 = 3310 mg/kg body weight

3,5,5-TRIMETHYLHEXYL ACETATE (CAS: 58430-94-7)

Oral route :

LD50 = 4250 mg/kg body weight

May be harmful if swallowed.

b) Skin corrosion/skin irritation :

Repeated or prolonged contact with the substance may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

c) Serious damage to eyes/eye irritation :

Splashes in the eyes may cause irritation and reversible damage

d) Respiratory or skin sensitisation :

No data available.

e) Germ cell mutagenicity :

No data available.

f) Carcinogenicity :

No data available.

g) Reproductive toxicant :

No data available.

h) Specific target organ systemic toxicity - single exposure :

No data available.

i) Specific target organ systemic toxicity - repeated exposure :

No data available.

j) Aspiration hazard :

No data available.

11.1.2 Complex substance**11.1.2.1 Information on hazard classes****a) Acute toxicity :**

Oral route : May be harmful if swallowed.

Dermal route : No data available.

b) Skin corrosion/skin irritation :

No data available.

c) Serious damage to eyes/eye irritation :

Splashes in the eyes may cause irritation and reversible damage

d) Respiratory or skin sensitisation :

No data available.

e) Germ cell mutagenicity :

No data available.

f) Carcinogenicity :

No data available.

g) Reproductive toxicant :

No data available.

h) Specific target organ systemic toxicity - single exposure :

No data available.

i) Specific target organ systemic toxicity - repeated exposure :

No data available.

j) Aspiration hazard :

No data available.

11.1.2.2 Other information**Symptoms related to the physical, chemical and toxicological characteristics**

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

Monograph(s) from the IARC (International Agency for Research on Cancer) :

CAS 108-88-3 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

11.2. Information on other hazards**SECTION 12 : ECOLOGICAL INFORMATION**

Toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

12.1. Toxicity**12.1.2 Complex substance**

No aquatic toxicity data available for the substances.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

The appropriate waste management of the substance and/or its container must be determined in accordance with local regulations.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2025 - IMDG 2024 [42-24] - ICAO/IATA 2026 [67]).

14.1. UN number

3082

	1 / 5 kg (IMDG 3.3.1 - 2.10.2.7)									
IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ	
	9	-	III	964	450 L	964	450 L	A97 A158 A197 A215	E1	
	9	-	III	Y964	30 kg G	-	-	A97 A158 A197 A215	E1	
	Not subject to this regulation if Q ≤ 5 1 / 5 kg (IATA 4.4.4 - DS A197)									

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

Marine pollutant (IMDG 3.1.2.9):(3,5,5-trimethylhexyl acetate)

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available.

SECTION 15 : REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

The following regulations have been used:

- Globally Harmonized System of Classification and Labelling of Chemicals (GHS), review no. 8 (2019)

Container information:

No data available.

Particular provisions :

No data available.

Ozone-depleting substances (Regulation (EC) No 2024/590).

The substance does not pose a risk to the ozone layer.

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Wording of the phrases mentioned in section 3 :

H225	Highly flammable liquid and vapour.
H227	Combustible liquid.
H302	Harmful if swallowed.
H303	May be harmful if swallowed.

H304	May be fatal if swallowed and enters airways.
H313	May be harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H316	Causes mild skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360	May damage fertility or the unborn child .
H373	May cause damage to organs through prolonged or repeated exposure .
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LQ : Limited Quantity

EQ : Excepted Quantity

EmS : Emergency Schedule

E : Packing Instruction

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

CMR: Carcinogenic, mutagenic or reprotoxic.

STEL : Short-term exposure limit

TWA : Time-Weighted Average

TMP : French Occupational Illness table

VLE : Threshold Limit Value (exposure)

VME : Average Exposure Value.

VLRI : Indicative limit value

VLRC : Indicative constraint value

ADR : Agreement concerning the international carriage of dangerous goods by road.

GHS09 : Environment

IATA : International Air Transport Association.

IMDG : International Maritime Dangerous Goods.

ICAO : International Civil Aviation Organisation

PBT: Persistent, bioaccumulable and toxic.

RID : Regulations concerning the International carriage of Dangerous goods by rail.

vPvB : Very persistent, very bioaccumulable.

The information contained in this safety data sheet is based on our current knowledge at the time of publication and is provided in good faith. It does not constitute any guarantee of specific product properties nor establish any contractual relationship. The user remains solely responsible for safe and compliant use of the product in accordance with current regulations.