

## SAFETY DATA SHEET

### 1. INFORMATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

#### 1.1 Product identifiers

PRODUCT NAME	<b>MUSTARD OIL</b>
PRODUCT CODE	<b>EC 0010</b>

COMMON CHEMICAL NAME:	Allyl Isothiocyanate
CAS:	57-06-7
FEMA:	2034
CLASSIFICATION:	Oil / Identical Natural

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

IDENTIFIED USES: Flavoring Agent

#### 1.3 Details of the supplier of the safety data sheet:

AROMÁTICOS QUÍMICOS POTOSINOS, S.A. DE C.V.  
AV. CIRCUNVALACIÓN ORIENTE No. 225 CD. GRANJA  
TEL. 01 (33) 3777 – 4240 WIHT 20 LÍNEAS  
ZAPOPAN, JALISCO. CP 45010, MÉXICO

1.4 Emergency phone: Emergency System in Transportation for the Chemical Industry (ESTCI)  
800 00 214-00  
MEXICO CITY  
(55) 55-5915-88

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture:

<b>Classification according to the globally harmonized system</b>	
Flammable Liquid (category 3)	H226
Acute Toxicity Oral (category 3)	H301
Acute Toxicity dermal (category 2)	H310
Skin Irritation (category 2)	H315
Eye Irritation (category 2A)	H319
Acute Toxicity - Inhalation: vapour (Category 2)	H330
Specific target organ toxicity - single exposure (category 3)	H335
Toxicity Aquatic Chronic(category 1)	H410
Toxicity Aquatic Acute(category 1)	H400

#### 2.2 GHS Label elements, including precautionary statements:

PICTOGRAM



**SIGNAL WORD:**

Danger

**Hazard statement(s)**

H226	Flammable liquids and vapors
H301	Toxic if swallowed
H310	Fatal in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H330	Fatal if inhaled
H335	May cause respiratory irritation
H410	Very toxic to aquatic life with long lasting effects

**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
P260	Do not breathe dust/fume/gas/mist/ vapours /spray
P262	Do not get in eyes, on skin, or on clothing
P264	Wash the skins thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P271	Use only outdoors or in a well-ventilated area
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P284	Wear respiratory protection
P301+P361 + P353	IF SWALLOWED Remove/Take off immediately all contaminated clothing Rinse skin with water/shower
P304 + P340	IF INHALED Remove victim to fresh air and keep at rest in a position 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 CENTRE or doctor/physician
P330	Rinse mouth
P332 + P313	If skin irritation occurs Get medical advice/attention
P337 + P313	If eye irritation persists Get medical advice/attention
P361	Remove/Take off immediately all contaminated clothing
P363	Wash contaminated clothing before reuse
P370 + P378	In case of fire use alcohol resistant foam, chemical powder or CO2
P391	Collect spillage
P403 + P233	Store in a well-ventilated place Keep container tightly closed
P405	Store locked up
P501	Dispose of contents / container in accordance with local / regional / national / international regulations.

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

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

**3.1 Substances.**

Component	CAS	Clasification	Concentration
Allyl Isothiocyanate	57-06-7	Flam. Liq. 3; H226 Acute Tox. 3 (Oral); H301 Acute Tox. 2 (Dermal); H310 Skin Irrit. 2; H315 Eye Irrit. 2A; H319 Acute Tox. 2 (Inhalation:vapour);H330 STOT SE 3; H335 Aquatic Chronic 1; H410 Aquatic Acute 1; H400	93.0 – 100.0 %

**4. FIRST AID MEASURES**

**4.1 Description of first aid measures.**

**IN CASE OF EYED CONTACT**

Remove contact lenses. Subject the eyes under running water for at least 15 minutes. Obtain medical assistance if necessary.

**IN CASE OF SKIN CONTACT**

Remove any contaminated clothing or shoes. Wash with soap and water. If irritation persists, get medical attention. In case of contact with the skin (or hair). Remove immediately the contaminated clothing. Rinse skin with water / shower. Wash body parts that have been carefully exposed after handling.

**IF INHALED**

Remove to fresh air. Avoid gas inhalation. Obtain medical assistance if necessary.

**IF SWALLOWED**

Obtain immediate medical assistance. If swallowed: call a poison control center or doctor if the person is unwell. Rinse mouth. Do not induce vomiting

**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)

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

No data available.

## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media:

**SUITABLE EXTINGUISHING MEDIA:** Foam, dry powder, Carbon dioxide.

**UNSUITABLE EXTINGUISHING MEDIA:** Direct water jet..

### 5.2 Special hazards arising from the substance or mixture:

Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides.

### 5.3 Advice for firefighters:

High temperatures can give rise to high pressures inside closed containers. Avoid inhaling the fumes or vapors that are generated. To use an Appropriate respiratory Equipment. Do not allow spills from fire fighting to spill into drains or water courses.

### 5.4 Further information:

Not available

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal Precautions:

Keep away from heat / sparks / open flames / hot surfaces. Keep container tightly closed. Use explosion-proof electrical / ventilating / lighting / equipment. do not use tools that produce sparks. Do not eat, drink or smoke samples this product is handled.

### 6.2 Environmental precautions:

Do not touch spilled material. Eliminate all sources of ignition. Prevent leaks inside drains, pipes, sewers or confined areas.

### 6.3 Methods for cleaning up:

Contain the spilled material with an inert, non-combustible absorbent material (such as dry earth or sand) and remove it to an approved waste container. If required, report the spill to the appropriate authority

### Recovery:

Recycle to process, if possible.

### Neutralization:

Absorb with an inert material and put the spilled material in an appropriate waste disposal.

## 7. HANDLING AND STORAGE

### 7.1 Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids, alkalis.

### 7.2 Storage:

Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Sensitive to light. Store in light-resistant containers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>8.1 Exposure Limits:</b>	Not available.
<b>8.2 Exposure controls:</b>	
RESPIRATORY PROTECTION:	Use positive pressure self-contained breathing apparatus.
HAND PROTECTION:	Use protective gloves oil/chemical resistant.
EYE PROTECTION:	Use protective goggles or facial mask.
SKIN PROTECTION:	During its management, follow the Good Manufacturing Practices. Avoid prolonged contact. Wash your hands immediately before eating and after any contact with the material. Thoroughly wash any clothing or shoes before reusing them.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties.

APPEARANCE:	Oily, crystalline liquid.
PURITY (ALLYL ISOTHIOCYANATE)	Minimum 93.0 %
COLOR:	Light yellow to amber yellow.
UPPER / LOWER LIMIT OF FLAMMABILITY OR EXPLOSION:	Not available.
ODOR AND TASTE:	Pungent, irritating odor, pungent taste.
STEAM PRESSURE:	CAUTION: LACRIMOGEN.
ODOR THRESHOLD:	3,700,000 mm / Hg at 30.00 ° C.
VAPOR DENSITY:	Not available.
pH:	Not available.
RELATIVE DENSITY:	Not available.
MELTING POINT:	- 80 ° C (-112 ° F).
SOLUBILITY:	Soluble in most oil mixtures, in oil mineral, and in alcohol
BOILING POINT:	150 ° C (302 ° F)
DENSITY AT 25 ° C:	1,013 - 1,020
REFRACTION INDEX 20 ° C:	1,527 - 1,531
DELIVERY COEFFICIENT:	
N-OCTAGONAL / WATER:	Not available
TEMPERATURE OF DECOMPOSITION:	Not available
SELF ACCELERATING POLYMERIZATION TEMPERATURE:	DOES NOT POLYMERIZE
FLASH POINT:	105.0 ° F (40.56 ° C)
SELF-INFLAMMATION TEMPERATURE:	58.8 ° C
EVAPORATION RATE:	Not available.

## 10. STABILITY AND REACTIVITY

<b>10.1 Reactivity:</b>	No data available
<b>10.2 Chemical stability:</b>	Stable under conditions of normal storage and use.
<b>10.3 Possibility of hazardous reactions:</b>	No data available
<b>10.4 Conditions to avoid:</b>	Heat, flames and sparks.
<b>10.5 Incompatible materials:</b>	Strong oxidizing agents.
<b>10.6 Hazardous decomposition products:</b>	Carbon monoxide and carbon dioxide.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects.

#### Acute toxicity

LD50 Oral - Rat- 112 mg/kg  
LD50 Dermal – Rabbit - 88 mg/kg  
Inhalation: No data available

#### Skin corrosion/irritation

Causes skin irritation

#### Serious eye damage/eye irritation

Causes serious eye irritation

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

*Tumorigenic: Neoplastic by RTECS criteria. Kidney, Ureter, Bladder. Kidney tumors.*

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component 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 identified as a carcinogen or potential carcinogen by OSHA.

#### Reproductive toxicity

No data available

**Specific target organ toxicity -single exposure**  
Inhalation-May cause respiratory irritation.

**Specific target organ toxicity -repeated exposure**  
No data available

**Aspiration hazard**  
No data available

**Additional Information**  
No data available

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Very toxic to aquatic life with long lasting effects

### 12.2 Persistence and degradability

Not determined.

### 12.3 Bioaccumulative potential

Not determined.

### 12.4 Mobility in soil

Not determined.

### 12.5 Results of PBT and vPvB assessment

Not determined.

### 12.6 Other adverse effects

Avoid soil, groundwater and surface water contamination.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### WASTE FROM RESIDUE:

Dispose of in accordance with State, Federal and Local Regulations

#### CONTAMINATED PACKAGING:

Dispose of in accordance with State, Federal and Local Regulations.

## 14. TRANSPORT INFORMATION

### Shipping classification:

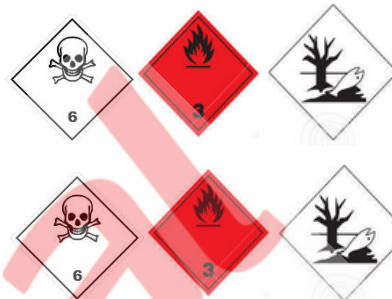
#### DOT (US)

UN number: 1545 Class: 6.1(3) Packing group: II  
Proper shipping name: Allyl isothiocyanate, stabilized.  
Poison Inhalation Hazard: Yes



**IMDG**

UN number: 1545 Class: 6.1(3) Packing group: II EMS-No: F-E, S-E  
Proper shipping name: Allyl isothiocyanate, stabilized.



**IATA**

UN number: 1545 Class: 6.1(3) Packing group: II  
Proper shipping name: Allyl isothiocyanate, stabilized.

**15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the substance or mixture.  
No data available.

**16. OTHER INFORMATION:**

*The information presented in this Safety data sheet is considered correct, but is not exhaustive and will be used only as guidance, which is based on the current knowledge of the chemical or mixture and is applicable to the precautions of appropriate safety for the product.*

**REFERENCE:** FCC XII; 44.

The information contained in this material safety data sheet was obtained from current and reliable sources. This data is supplied without warranty, expressed or implied, regarding its correctness or accuracy. It is the user's responsibility to determine safe conditions for use of this product and to assume liability for loss, injury, damage or expense resulting from improper use of this product.

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