

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier : AZOLLA AL 46

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

Identified uses	
Formulation additives, lubricants and greases - Industrial	
General use of lubricants and greases in vehicles or machinery - Industrial	
General use of lubricants and greases in vehicles or machinery - Professional	
Hydraulic oil	
Uses advised against	Reason
Not applicable.	

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Official National Emergency Number:
 Mexico: Sistema de Emergencias en Transporte para la Industria Química (SETIQ) -
 Tel.: 01 800 00 214 00

SECTION 2: Hazards identification

Classification of the substance or mixture : AQUATIC HAZARD (ACUTE) - Category 3
 AQUATIC HAZARD (LONG-TERM) - Category 3

GHS label elements

Signal word : No signal word.

Hazard statements : H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements



- Prevention** : Avoid release to the environment.
- Response** : Not applicable.
- Storage** : Not applicable.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	% (w/w)	Identifiers	GHS Classification
Distillates (petroleum), hydrotreated middle	≥50 - ≤75	CAS: 64742-46-7	ASPIRATION HAZARD - Category 1
2,6-di-tert-butyl-p-cresol	<1	CAS: 128-37-0	SKIN CORROSION/IRRITATION - Category 3 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1

Additional information : Mineral oil of petroleum origin. Product containing mineral oil with less than 3% DMSO extract as measured by IP 346 The product is made from synthetic base oils

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Skin contact** : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.



Skin contact : Adverse symptoms may include the following:
irritation
dryness
cracking

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : carbon monoxide
carbon dioxide
nitrogen oxides
phosphorus oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.



Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

SECTION 7: Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

See Section 10 for incompatible materials before handling or use.

- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	NOM-010-STPS-2014 (Mexico, 4/2016) [Aceite mineral puro, alta y muy alta refinación, nieblas, except fluidos de corte de metal] A4. TWA 8 hours: 5 mg/m ³ . Form: mist.
2,6-di-tert-butyl-p-cresol	NOM-010-STPS-2014 (Mexico, 4/2016) A4. TWA 8 hours: 2 mg/m ³ . Form: Inhalable fraction and vapor.

Biological exposure indices

No exposure indices known.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.



Advisory OEL : Mineral oil mist: USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined)

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : In case of contact through splashing: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Hydrocarbon-proof gloves

Fluorinated rubber

nitrile rubber

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Ensure adequate ventilation and check that a safe, breathable atmosphere is present before entry into confined spaces. In case of insufficient ventilation, wear suitable respiratory equipment. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses..

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature (20°C / 68°F) and pressure (1013 hPa) unless otherwise indicated

Appearance

Physical state : Liquid. [limpid]

Color : Clear.

Odor : Characteristic.

Odor threshold : Not available.

pH : Not applicable.

Melting point/freezing point : Technically not possible to measure

Boiling point : >316°C (>600.8°F) [ISO 3405]

Flash point : Open cup: 140°C (284°F) [ASTM D 92]

Evaporation rate : Not available.

Flammability (solid, gas) : Not applicable.

Lower and upper explosive (flammable) limits : Lower: 0.9%
Upper: 7%

Vapor pressure : 0.01 kPa (<0.075 mm Hg) [room temperature]
Not applicable. [50°C]



- Vapor density** : >2 [Air = 1]
- Relative density** : 0.83 to 0.85 [ISO 12185]
- Density** : 0.83 to 0.85 g/cm³ [15°C] [ISO 12185]
- Solubility(ies)** :

Media	Result
water	Not soluble

- Miscible with water** : No.
- Solubility in water** : 0.898 g/l
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : >140°C (>284°F) [ASTM E 659]
- Decomposition temperature** : Not applicable.
- Viscosity** : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): 42 to 50 mm²/s (42 to 50 cSt) [ISO 3104]
- Flow time (ISO 2431)** : Not available.
- Particle characteristics**
- Median particle size** : Not applicable.

SECTION 10: Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : Stable under recommended storage and handling conditions (see Section 7).
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : Strong oxidizing agents
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Product/substance	Result
<input checked="" type="checkbox"/> Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	Rat - Oral - LD50 >5000 mg/kg OECD [401] Rabbit - Dermal - LD50 >3160 mg/kg OECD [402] Rat - Inhalation - LC50 Dusts and mists >5266 mg/m ³ [4 hours] OECD [403]



2,6-di-tert-butyl-p-cresol

Rat - Oral - LD50

>6000 mg/kg

OECD [401]

Rat - Dermal - LD50

>2000 mg/kg

OECD [402]

Acute toxicity estimates

N/A

Based on available data, the classification criteria are not met. The supplier of one or more of the components contained within this formulation has indicated that he has data on the components and/or similar mixtures, which confirms that at the concentration used, acute dermal toxicity is not required..

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Respiratory corrosion/irritation

Based on available data, the classification criteria are not met.

Respiratory or skin sensitization

Skin

Based on available data, the classification criteria are not met.

Respiratory

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure)

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on the likely routes of exposure

Not available.

**Potential acute health effects**

Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Defatting to the skin. May cause skin dryness and irritation.
Ingestion	: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation dryness cracking
Ingestion	: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure**Potential chronic health effects**

General	: No known significant effects or critical hazards.
Carcinogenicity	: <input checked="" type="checkbox"/> No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

SECTION 12: Ecological information

Harmful to aquatic life with long lasting effects.

Toxicity

Product/substance	Result
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	Acute - EC50 ISO [10253] Algae - <i>Skeletonema costatum</i> 10000 mg/l [72 hours] Acute - LC50 Fish 1028 mg/l [96 hours] Acute - EC50 ISO [14669] Daphnia - <i>Acartia tonsa</i> 3193 mg/l [48 hours] Chronic - NOELR - Fresh water Daphnia - <i>Daphnia magna</i> >1000 mg/l [21 days] Chronic - NOELR - Fresh water Fish - <i>Oncorhynchus mykiss</i> >1000 mg/l [21 days] Chronic - NOELR - Marine water Algae - <i>Skeletonema costatum</i> >1000 mg/l [21 days]
2,6-di-tert-butyl-p-cresol	Acute - LC50 OECD 203



Fish - *Oryzias latipes*
1.1 mg/l [96 hours]
Acute - EC50
OECD 202
Crustaceans - *Daphnia magna*
0.48 mg/l [48 hours]
Effect: Mobility
Chronic - NOEC
OECD 210
Fish - *Danio rerio*
0.053 mg/l [30 days]
Effect: Mortality
Chronic - NOEC
OECD 211
Daphnia - *Daphnia magna*
0.07 mg/l [21 days]
Effect: Reproduction
Chronic - EC10
OECD 201
Algae - *Desmodesmus subspicatus*
0.4 mg/l [72 hours]
Effect: (growth rate)
Chronic - NOEC - Fresh water
OECD
Daphnia - Water flea - *Daphnia magna*
0.069 mg/l [21 days]
Effect: Reproduction
Acute - LC50 - Fresh water
OECD
Fish - Medaka, high-eyes - *Oryzias latipes*
1.1 mg/l [96 hours]
Effect: Mortality

Based on available data, the classification criteria are met.

Persistence and degradability

Product/substance	Result
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics 2,6-di-tert-butyl-p-cresol	OECD 306 74% [28 days] - Readily OECD 301C 4.5% [28 days] - Not readily

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics 2,6-di-tert-butyl-p-cresol	- -	- -	Readily Not readily

Bioaccumulative potential

Product/substance	LogK _{ow}	BCF	Potential
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics 2,6-di-tert-butyl-p-cresol	- 5.1	171 1277 [OECD 305 C]	Low High

Mobility in soil



- Soil/water partition coefficient (K_{oc})** : Not available.
- Mobility in soil** : Given its physical and chemical characteristics, the product generally shows low soil mobility. The product is insoluble and floats on water. Loss by evaporation is limited.

Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR	IMDG	ICAO/IATA
UN/ID No	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

National regulations

Official Mexican Standard NOM-018-STPS-2015, Harmonized system for the identification and communication of hazards and risks from hazardous chemical substances in workplaces

International regulations

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia inventory (AIC)	: All components are listed or exempted.
Canada inventory (DSL/NDSL)	: All components are listed or exempted.
China inventory (IECSC)	: All components are listed or exempted.
Europe inventory (EC)	: All components are listed or exempted.
Japan inventory	: Japan inventory (CSCL) : All components are listed or exempted. Japan inventory (ISHL) : All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC)	: All components are listed or exempted.
Philippines inventory (PICCS)	: All components are listed or exempted.
Korea inventory (KECI)	: All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI)	: All components are listed or exempted.
Thailand inventory	: Not determined.
Turkey inventory	: Not determined.
United States inventory (TSCA 8b)	: All components are listed or exempted.
Vietnam inventory	: Not determined.

The information stated in this section relates solely to the conformity of the chemical product with the countries Inventories. The information used to confirm the inventory status of this product may be based on additional data to the chemical composition shown in Section 3. Other regulations may apply for importation or marketing authorizations.

**SECTION 16: Other information****History**

Date of revision : 2025/10/07

previous revision date : 2022/11/08

Version : 1.02

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygienists
 ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
 ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 EC50 = Half maximal effective concentration
 EL50 = median Effective Loading
 IATA = International Air Transport Association
 IC50 = Half maximal inhibitory concentration
 IDHL = Immediately dangerous to life or health
 IMDG = International Maritime Dangerous Goods
 LC50 = Median lethal concentration
 LD50 = Median lethal dose
 LL50 = median Lethal Loading
 LogKow = logarithm of the octanol/water partition coefficient
 N/A = Not available
 NIOSH = National Institute of Occupational Safety and Health
 NOAEL = No Observed Adverse Effect Level
 NOEC No Observed Effect Concentration
 NOEL = No Observed Effect Level
 NOELR = No observed Effect Loading Rate
 OECD = Organisation for Economic Co-operation and Development
 OEL = Occupational Exposure Limit
 OSHA = Occupational Safety and Health Administration.
 POP = Persistent Organic Pollutants
 QSAR = Quantitative Structure–Activity Relationship
 REL = Recommended Exposure Limit
 RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
 STEL = Short Term Exposure Limit
 TLV = Threshold Limit Value
 TWA = Time Weight Average
 VOC = Volatile Organic Compound
 UVCB Substance of unknown or Variable composition, Complex reaction products or Biological material

Procedure used to derive the classification

Classification	Justification
AQUATIC HAZARD (ACUTE) - Category 3	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

The information, which is based on the current knowledge of the chemical substance or mixture and applies to appropriate safety precautions for the product, is deemed correct but is not exhaustive and will be used only as a guide.