



## 1. Product and company identification

<b>Product name</b>	Alusol AU 70
<b>MSDS #</b>	467894
<b>Historic MSDS #:</b>	03127-BE
<b>Code</b>	467894-US03
<b>Product use</b>	Metalworking fluid - soluble. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
<b>Manufacturer</b>	Castrol Industrial North America, Inc. 150 W. Warrenville Road Naperville, IL 60563
<b>Supplier</b>	Castrol Industrial North America, Inc. 150 W. Warrenville Road Naperville, IL 60563 Product Information: +1-877-641-1600
<b>EMERGENCY SPILL INFORMATION:</b>	1 (800) 424-9300 CHEMTREC (USA)

## 2. Hazards identification

<b>Physical state</b>	Liquid.
<b>Color</b>	Amber. [Light]
<b>Emergency overview</b>	WARNING !  CAUSES EYE AND SKIN IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION.  Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis. In accordance with good industrial hygiene and safety work practices, airborne exposures should be controlled to the lowest extent practicable. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
<b>Routes of entry</b>	Dermal contact. Eye contact. Inhalation.
<b>Potential health effects</b>	
<b>Eyes</b>	Causes eye irritation.
<b>Skin</b>	Causes skin irritation. Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.
<b>Inhalation</b>	May cause respiratory tract irritation.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation and diarrhea.
<b>See toxicological information (Section 11)</b>	

## 3. Composition/information on ingredients

Ingredient name	CAS #	%
Base oil - highly refined	Varies	25 - 30
Amine neutralized carboxylic acids	Not available.	5 - 10
Amine neutralised phosphoric acid esters	Not available.	1 - 5
Amine neutralized amino carboxylic acids	Not available.	1 - 5
Triethanolamine	102-71-6	1 - 5
amines, tallow alkyl, ethoxylated	61791-26-2	1 - 5

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## 4. First aid measures

<b>Eye contact</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
<b>Skin contact</b>	Immediately wash exposed skin with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention.
<b>Inhalation</b>	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If potentially dangerous quantities of this material have been swallowed, call a physician immediately. Get medical attention if symptoms occur.

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## 5. Fire-fighting measures

<b>Flash point</b>	[Product does not sustain combustion.] Water content interferes with flash point determination.
<b>Fire/explosion hazards</b>	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Extinguishing media</b>	
<b>Suitable</b>	Use an extinguishing agent suitable for the surrounding fire.
<b>Not suitable</b>	Do not use water jet.
<b>Fire-fighting procedures</b>	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.
<b>Hazardous combustion products</b>	Combustion products may include the following: phosphorus oxides carbon oxides (CO, CO <sub>2</sub> ) (carbon monoxide, carbon dioxide) nitrogen oxides (NO, NO <sub>2</sub> etc.)
<b>Protective clothing (fire)</b>	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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## 6. Accidental release measures

<b>Personal precautions</b>	No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. In accordance with good industrial hygiene and safety work practices, airborne exposures should be controlled to the lowest extent practicable. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
<b>Environmental precautions</b>	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).
<b>Methods for cleaning up</b>	
<b>Large spill</b>	Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
<b>Small spill</b>	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## 7. Handling and storage

<b>Handling</b>	Put on appropriate personal protective equipment (see Section 8). Workers should wash hands and face before eating, drinking and smoking. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.
<b>Storage</b>	Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). 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.
<b>Other information</b>	DO NOT ADD NITRITES TO THIS FLUID.

## 8. Exposure controls/personal protection

### Occupational exposure limits

<b>Ingredient name</b>	<b>Occupational exposure limits</b>
Base oil - highly refined	<b>ACGIH (United States).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Mineral oil, mist <b>OSHA (United States).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Mineral oil, mist
Triethanolamine	<b>ACGIH TLV (United States).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 9/1994

While specific OELs for certain components may be shown in this section, other components may be present in any mist, vapor or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

**Some states may enforce more stringent exposure limits.**

<b>Control Measures</b>	Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
<b>Hygiene measures</b>	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.
<b>Personal protection</b>	
<b>Eyes</b>	Avoid contact with eyes. Safety glasses with side shields or chemical goggles.
<b>Skin and body</b>	Do not get on skin or clothing. Wear suitable protective clothing.
<b>Respiratory</b>	Use adequate ventilation. In accordance with good industrial hygiene and safety work practices, airborne exposures should be controlled to the lowest extent practicable.
<b>Hands</b>	The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

## 9. Physical and chemical properties

<b>Physical state</b>	Liquid.
<b>Color</b>	Amber. [Light]
<b>Odor</b>	Mild.
<b>Flash point</b>	[Product does not sustain combustion.] Water content interferes with flash point determination.
<b>Density</b>	965 kg/m <sup>3</sup> (0.965 g/cm <sup>3</sup> ) at 15.6°C
<b>pH</b>	9.25 [Conc. (% w/w): 5%]
<b>Solubility</b>	Soluble in water.

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## 10. Stability and reactivity

<b>Stability and reactivity</b>	The product is stable.
<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	Avoid excessive heat.
<b>Incompatibility with various substances</b>	Reactive or incompatible with the following materials: oxidizing materials.
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
<b>Hazardous polymerization</b>	Under normal conditions of storage and use, hazardous polymerization will not occur.

## 11. Toxicological information

### Classification

Product/ingredient name	IARC	NTP	OSHA
Triethanolamine	3	-	-

IARC :  
3 - Not classifiable as a human carcinogen.

**Other Toxicity Data** Contains material that may cause target organ damage, based on animal data.  
Target Organs: kidneys and liver.

**Other information** Alkanolamine: This product contains an alkanolamine. In all metalworking fluids containing amines, there is a potential for forming nitrosamines which are animal carcinogens. Therefore, no nitrites or related nitrosating agents should be added to such compositions.

### Potential chronic health effects

**Carcinogenicity** No known significant effects or critical hazards.

## 12. Ecological information

### Ecotoxicity

No testing has been performed by the manufacturer.

## 13. Disposal considerations

**Waste information** 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.

**NOTE: The generator of waste has the responsibility for proper waste identification (based on characteristic(s) or listing), transportation and disposal**

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## 14. Transport information

Not classified as hazardous for transport (DOT, TDG, IMO/IMDG, IATA/ICAO)

## 15. Regulatory information

### U.S. Federal Regulations

#### United States inventory (TSCA 8b)

All components are listed or exempted.

**SARA 302/304/311/312 extremely hazardous substances:** No products were found.

**SARA 302/304 emergency planning and notification:** No products were found.

**SARA 302/304/311/312 hazardous chemicals:** Triethanolamine

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** Alusol AU 70: Immediate (acute) health hazard, Delayed (chronic) health hazard

#### SARA 313

#### Form R - Reporting requirements

This product does not contain any hazardous ingredients at or above regulated thresholds.

#### Supplier notification

This product does not contain any hazardous ingredients at or above regulated thresholds.

#### CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4):

CERCLA: Hazardous substances.: Amyl acetates: 5000 lbs. (2270 kg); Isoamyl Acetate: 5000 lbs. (2270 kg); Acetophenone: 5000 lbs. (2270 kg); Diethanolamine; 2,2'-Iminodiethanol: 100 lbs. (45.4 kg); Acetaldehyde: 1000 lbs. (454 kg); 1,4-dioxane: 100 lbs. (45.4 kg); Ethylene oxide: 10 lbs. (4.54 kg); Formaldehyde.: 100 lbs. (45.4 kg); sodium hydroxide: 1000 lbs. (454 kg);

### State regulations

#### Massachusetts Substances

The following components are listed: TRIETHANOLAMINE

#### New Jersey Hazardous Substances

The following components are listed: MINERAL OIL (UNTREATED and MILDLY TREATED); TRIETHANOLAMINE; ETHANOL, 2,2',2"-NITRILOTRIS-

#### Pennsylvania RTK Hazardous Substances

The following components are listed: PROPANOL, OXYBIS-; ETHANOL, 2,2',2"-NITRILOTRIS-

#### California Prop. 65

**WARNING:** This product contains a chemical known to the State of California to cause cancer. Acetaldehyde; 1,4-dioxane; Formaldehyde.

**WARNING:** This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. Ethylene oxide

### Other regulations

#### Canada inventory

At least one component is not listed.

#### REACH Status

For the REACH status of this product please consult your company contact, as identified in Section 1.

#### Australia inventory (AICS)

At least one component is not listed.

#### China inventory (IECSC)

At least one component is not listed.

#### Japan inventory (ENCS)

At least one component is not listed.

#### Korea inventory (KECI)

At least one component is not listed.

#### Philippines inventory (PICCS)

At least one component is not listed.

## 16. Other information

### Label requirements

WARNING !

CAUSES EYE AND SKIN IRRITATION.  
MAY CAUSE RESPIRATORY TRACT IRRITATION.

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**HMIS® Rating :**

Health \* 2  
 Flammability 1  
 Physical 0  
 Hazard  
 Personal B  
 protection

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

**History**

**Date of issue** 06/06/2012.  
**Date of previous issue** No previous validation.  
**Prepared by** Product Stewardship

✔ Indicates information that has changed from previously issued version.

**Notice to reader**

*All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.*

*The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.*

*It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.*