

## Section 1. Identification

### Product identifier

**Product Identity** 601 MW Fluid  
**Other means of identification** 601 Metalworking  
**Relevant identified uses of the substance or mixture and uses advised against**  
See Technical Data Sheet.

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

**Company Name** Universal Oil Inc.  
265 Jefferson Avenue  
Cleveland, OH 44113.

### Emergency

**24 hour Emergency Telephone No.** 216-771-4300  
**Customer Service:** 216-771-4300

## Section 2. Hazard(s) identification

### Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Acute toxicity(inhalation), category 4;H332	Harmful if inhaled.
Lactation effect;H362	May cause harm to breast-fed children.
Skin corrosion/irritation category 1B;H314	Causes severe skin burns and eye damage.
Serious eye damage / eye irritation, category 1;H318	Causes serious eye damage.
Skin sensitizer category 1;H317	May cause an allergic skin reaction.
Specific target organ toxicity, repeated exposure category 1;H372	Causes damage to organs through prolonged or repeated exposure. Specific Target Organs: ( kidneys, liver)

### Label elements



**Danger**

H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H332 Harmful if inhaled.  
H362 May cause harm to breast-fed children.  
H372 Causes damage to organs through prolonged or repeated exposure.

### [Prevention]

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe dust, fume, mist, vapors or spray.  
P263 Avoid contact during pregnancy, while nursing.  
P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves, protective clothing, eye protection, face protection.

**[Response]**

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P303+361+353 IF ON SKIN (or hair): Remove, take off immediately all contaminated clothing. Rinse skin with water, shower.

P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+313 IF exposed or concerned: Get medical advice or attention.

P310 Immediately call a POISON CENTER, doctor or physician.

P312 Call a POISON CENTER, doctor or physician if you feel unwell.

P314 Get Medical advice or attention if you feel unwell.

P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P333+313 If skin irritation or a rash occurs: Get medical advice or attention.

P362+364 Take off contaminated clothing and wash it before reuse.

P363 Wash contaminated clothing before reuse.

**[Storage]**

P405 Store locked up.

**[Disposal]**

P501 Dispose of contents or container in accordance with local and national regulations.

**Other hazards**

This product contains no PBT/vPvB chemicals.

This product contains no endocrine disrupting chemicals.

### Section 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil-unspecified CAS Number: 64742-52-5 Synonyms: Polymer Binders and Adhesive, Distillate (petroleum) hydrotreated heavy naphthenic	45 - 70	Not Classified	No data available
Alkanes, C14- 17, chloro CAS Number: 85535-85-9 Synonyms: Chlorinated paraffin C14-17	10 - 30	Lactation effect;H362 Aquatic toxicity (acute), category 1;H400 Aquatic toxicity (chronic), category 1;H410	No data available
Sulfonic acids, petroleum, sodium salts CAS Number: 68608-26-4 Synonyms: Sulfonic acids, petroleum, sodium salts	7 - 13	Serious eye damage / eye irritation, category 1;H318	No data available
Ferric chloride CAS Number: 7705-08-0 Synonyms: Ferric chloride	3 - 7	Acute toxicity(oral), category 4;H302 Skin corrosion/irritation category 1B;H314 Aquatic toxicity (chronic), category 3;H412 Serious eye damage / eye irritation, category 1;H318	No data available
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine CAS Number: 4719-04-4 Synonyms: Hexahydro-1,3,5-tris(2-hydroxyethyl)-S-triazine, Hexahydro-1,3,5-tris(hydroxyethyl)triazine	3 - 7	Acute toxicity(oral), category 4;H302 Skin sensitizer category 1;H317 C ≥ 0.1 % Acute toxicity(inhalation), category 2;H330 Eye Dam. 2;H319  Specific target organ toxicity, repeated exposure category 1;H372	No data available
1-Aminopropan-2-ol CAS Number: 78-96-6 Synonyms: Isopropanolamine	1 - 5	Skin corrosion/irritation category 1B;H314 Acute toxicity(dermal), category 4;H312	No data available
Triethanolamine, TEA(99%) CAS Number: 102-71-6 Synonyms: Triethanolamine	1 - 5	Not Classified	No data available

The actual concentration or concentration range is withheld as a trade secret.

\*PBT/vPvB - PBT-substance or vPvB-substance.

The full texts of the phrases are shown in Section 16.

### Section 4. First aid measures

#### Description of first aid measures

<b>General</b>	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
<b>Inhalation</b>	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
<b>Eyes</b>	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
<b>Skin</b>	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
<b>Ingestion</b>	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.
<b>Most important symptoms and effects, both acute and delayed</b>	
<b>Overview</b>	ACGIH - TLV: 1 mg/cu. M Eye Contact CONTACT MAY CAUSE EYE IRRITATION AND POSSIBLE BURNS. Skin Contact CONTACT MAY CAUSE SKIN IRRITATION AND POSSIBLE BURNS. Ingestion MAY CAUSE DAMAGE TO DIGESTIVE TRACT. SWALLOWING MAY CAUSE SEVERE BURNS TO MOUTH, THROAT, AND STOMACH. Inhalation MAY CAUSE DAMAGE TO UPPER RESPIRATORY TRACT. Treat symptomatically. See section 2 for further details.
<b>Eyes</b>	Causes serious eye damage.
<b>Skin</b>	May cause an allergic skin reaction. Causes severe skin burns and eye damage.

### Section 5. Fire-fighting measures

#### Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO<sub>2</sub>, powder, water spray.

Unsuitable extinguishing media: Do not use; water jet.

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

Hazardous decomposition: No hazardous decomposition data available.

Do not breathe dust, fume, mist, vapors or spray.

Avoid contact during pregnancy, while nursing.

#### Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

ERG Guide No. 154

### Section 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

#### Environmental precautions

Do not allow spills to enter drains or waterways.

#### Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations.

### Section 7. Handling and storage

#### Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

See section 2 for further details. - [Prevention]

#### Conditions for safe storage, including any incompatibilities

Incompatible materials: AVOID CONTACT WITH STRONG ALKALIS AND ALKALI METALS.

See section 2 for further details. - [Storage]

### Specific end use(s)

No available information

## Section 8. Exposure controls / personal protection

### Control parameters

CAS No.	Ingredient	Exposure	
		Source	Value
78-96-6	1-Aminopropan-2-ol	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
102-71-6	Triethanolamine, TEA(99%)	OSHA	No Established Limit
		ACGIH	5 mg/m <sup>3</sup>
		NIOSH	No Established Limit
4719-04-4	1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
7705-08-0	Ferric chloride	OSHA	TWA 2.5 mg/m <sup>3</sup> (as F)
		ACGIH	1 mg/m <sup>3</sup>
		NIOSH	TWA 2.5 mg/m <sup>3</sup> [*Note: The REL also applies to other inorganic, solid fluorides (as F).]
64742-52-5	Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil-unspecified	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
68608-26-4	Sulfonic acids, petroleum, sodium salts	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
85535-85-9	Alkanes, C14- 17, chloro	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit

Contains mineral oil. The exposure limits for oil mist are 5 mg/m<sup>3</sup> OSHA PEL and 5 mg/m<sup>3</sup> ACGIH.

### Exposure controls

#### Respiratory

If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

#### Eyes

Protective safety glasses recommended

#### Skin

Avoid skin contact. Protective gloves recommended.

#### Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

#### Other Work Practices

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

## Section 9. Physical and chemical properties

### Information on basic physical and chemical properties

#### Physical State

Liquid

#### Color

No available information

#### Odor

No available information

#### Melting point / freezing point

No available information

#### Initial boiling point and boiling range

No available information

#### Flammability (solid, gas)

No available information

#### Upper/lower flammability or explosive limits

**Lower Explosive Limit:** No available information

**Upper Explosive Limit:** No available information

#### Flash Point

°F °C, Test method: (Open/Close cup)

#### Auto-ignition temperature

No available information

#### Decomposition temperature

No available information

#### pH

No available information

Viscosity (cSt)	601 MW Fluid No available information
Solubility in Water	No available information
Partition coefficient n-octanol/water (Log Kow)	No available information
Vapor pressure (Pa)	No available information
Relative Density	No available information
Vapor Density	No available information

Evaporation rate (Ether = 1)	No available information
Oxidising properties	No available information
Explosive properties	No available information
Other information	
DMSO extract by IP346: Less than 3.0 wt % (mineral oil component only)	

## Section 10. Stability and reactivity

### Reactivity

Hazardous Polymerization will not occur.

### Chemical stability

Stable under normal circumstances.

### Possibility of hazardous reactions

No available information

### Conditions to avoid

Avoid high temperatures and contact with incompatible material

### Incompatible materials

AVOID CONTACT WITH STRONG ALKALIS AND ALKALI METALS.

### Hazardous decomposition products

No hazardous decomposition data available.

## Section 11. Toxicological information

### Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil-unspecified - (64742-52-5)	> 5,000.00, Rat - Category: NA	No data available.	No data available.	5.70, Rat - Category: NA	No data available.
Alkanes, C14- 17, chloro - (85535-85-9)	> 4,000.00, Rat - Category: NA	> 10.00, Rabbit - Category: NA	No data available.	No data available.	No data available.
Sulfonic acids, petroleum, sodium salts - (68608-26-4)	> 5,000.00, Rat - Category: NA	50,001.00, Rabbit - Category: NA	No data available.	No data available.	No data available.
Ferric chloride - (7705-08-0)	No data available.	No data available.	No data available.	No data available.	No data available.
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine - (4719-04-4)	1,000.00, Rat - Category: 4	3,501.00, Rabbit - Category: 5	No data available.	0.37, Rat - Category: 2	No data available.
1-Aminopropan-2-ol - (78-96-6)	2,813.00, Rat - Category: 5	No data available.	No data available.	No data available.	No data available.
Triethanolamine, TEA(99%) - (102-71-6)	6,400.00, Rat - Category: NA	> 2,000.00, Rabbit - Category: NA	No data available.	No data available.	No data available.

### Carcinogen Data

CAS No.	Ingredient	Source	Value
78-96-6	1-Aminopropan-2-ol	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;

102-71-6	Triethanolamine, TEA(99%)	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	No Established Limit
		OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
4719-04-4	1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes;
		ACGIH	No Established Limit
		OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
7705-08-0	Ferric chloride	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	No Established Limit
		OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
64742-52-5	Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil-unspecified	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	No Established Limit
		OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
68608-26-4	Sulfonic acids, petroleum, sodium salts	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	No Established Limit
		OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
85535-85-9	Alkanes, C14- 17, chloro	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	No Established Limit
		OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	4	Harmful if inhaled.
Skin corrosion/irritation	1B	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	1	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	---	Not Applicable

Possible routes of entry:

#### Symptoms and effects, both acute and delayed:

ACGIH - TLV: 1 mg/cu. M

Eye Contact CONTACT MAY CAUSE EYE IRRITATION AND POSSIBLE BURNS.

Skin Contact CONTACT MAY CAUSE SKIN IRRITATION AND POSSIBLE BURNS.

Ingestion MAY CAUSE DAMAGE TO DIGESTIVE TRACT. SWALLOWING MAY CAUSE SEVERE BURNS TO MOUTH, THROAT, AND STOMACH.

Inhalation MAY CAUSE DAMAGE TO UPPER RESPIRATORY TRACT. Treat symptomatically.

**Eyes** Causes serious eye damage.

**Skin** May cause an allergic skin reaction. Causes severe skin burns and eye damage.

## Section 12. Ecological information

### Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

### Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil-unspecified - (64742-52-5)	5,000.00, Oncorhynchus mykiss	1,000.00, Daphnia magna	1,000.00, Scenedesmus subspicatus
Alkanes, C14- 17, chloro - (85535-85-9)	> 5,000.00, Alburnus alburnus	0.01, Daphnia magna	3.30, Pseudokirchneriella subcapitata

Sulfonic acids, petroleum, sodium salts - (68608-26-4)	No data available.	> 1,000, Daphnia magna	> 1,000, Pseudokirchnerella subcapitata
Ferric chloride - (7705-08-0)	No data available.	No data available.	No data available.
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine - (4719-04-4)	No data available.	No data available.	No data available.
1-Aminopropan-2-ol - (78-96-6)	210.00, goldfish	No data available.	25.40, Algae
Triethanolamine, TEA(99%) - (102-71-6)	11,800.00, Pimephales promelas	609.88, Ceriodaphnia dubia	512.00, Desmodesmus subspicatus

**Persistence and degradability**

There is no data available on the preparation itself.

**Bioaccumulative potential**

No available information

**Mobility in soil**

No available information

**Results of PBT and vPvB assessment**

This product contains no PBT/vPvB chemicals.

**Other adverse effects**

No available information

### Section 13. Disposal considerations

**Waste treatment methods**

Observe all federal, provincial and local regulations when disposing of this substance.

### Section 14. Transport information

	<b>DOT (Domestic Surface Transportation)</b>	<b>IMO / IMDG (Ocean Transportation)</b>	<b>ICAO/IATA</b>
<b>UN number</b>	UN1760	UN1760	UN1760
<b>UN proper shipping name</b>	Corrosive liquids, n.o.s.	Corrosive liquids, n.o.s., (CHEMICAL NAME)	Corrosive liquids, n.o.s., (CHEMICAL NAME)
<b>Transport hazard class(es)</b>	<b>DOT Hazard Class:</b> 8 <b>Sub Class:</b> Not Applicable	<b>IMDG:</b> 8 <b>Sub Class:</b> Not Applicable	<b>Air Class:</b> 8 <b>Sub Class:</b> Not Applicable
<b>Packing group</b>	III	III	III
<b>Environmental hazards</b>			
<b>Special precautions for user</b>	Marine Pollutant: No; No available information		

### Section 15. Regulatory information

**Regulatory Overview** The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

**Toxic Substance Control Act (TSCA)**

CAS Number	Ingredient	Toxic Substance Control Act (TSCA)	Comments	Status
0004719-04-4	1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine	Yes		ACTIVE
0000078-96-6	1-Aminopropan-2-ol	Yes		ACTIVE
0085535-85-9	Alkanes, C14- 17, chloro	Yes	UVCB PMN; S; 5E	ACTIVE
0064742-52-5	Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil-unspecified	Yes	UVCB	ACTIVE
0007705-08-0	Ferric chloride	Yes		ACTIVE
0068608-26-4	Sulfonic acids, petroleum, sodium salts	Yes	UVCB	ACTIVE
0000102-71-6	Triethanolamine, TEA(99%)	Yes		ACTIVE

**Proposition 65 - Carcinogens (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Developmental Toxins (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Female Repro Toxins (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Male Repro Toxins (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 Label Warning:**

This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

<b>Section 16. Other information</b>
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**Revision Date**            08/16/2024

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H330 Fatal if inhaled.

H362 May cause harm to breast-fed children.

H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

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