

### SECTION 1: Identification

#### 1.1. Product identifier

Product Name : ANG S2

#### 1.2. Other means of identification

UN/ID No : UN1993

#### 1.3. Recommended use of the chemical and restrictions on use

Recommended Use : Cleaning agent for ANG coatings

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

Supplier Address  
actnano Inc.  
85 Bolton St.  
Cambridge, MA 02140  
Email: info@actnano.com

#### 1.5. Emergency telephone number

Company Phone Number : 1-877-655-8220  
Emergency Telephone : 1-352-323-3500 (International)  
1-800-535-5053 (North America)

### SECTION 2: Hazards identification

#### 2.1. Classification

##### Physical state

Liquid

##### Odor

Mild

##### GHS US classification

Skin corrosion/irritation : Category 2  
Specific target organ toxicity (single exposure) : Category 3  
Aspiration toxicity : Category 1  
Flammable liquids : Category 2

#### 2.2. GHS label elements, including precautionary statements

Hazard pictograms



Signal word

: Danger

Hazard statements

: Causes skin irritation  
May cause drowsiness or dizziness  
May be fatal if swallowed and enters airways  
Highly flammable liquid and vapor

Precautionary Statements - Prevention

: Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
Keep container tightly closed  
Ground/bond container and receiving equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge  
Use explosion-proof equipment  
Keep cool

Precautionary Statements - Response

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.  
Rinse skin with water/shower  
Wash contaminated clothing before reuse

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Precautionary Statements - Storage	If skin irritation occurs: Get medical advice/attention IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a poison center or doctor/physician if you feel unwell IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Do NOT induce vomiting In case of fire: Use CO <sub>2</sub> , dry chemical, or foam for extinction Store locked up Store in a well-ventilated place. Keep container tightly closed
Precautionary Statements - Disposal	Dispose of contents/container to an approved waste disposal plant
Other hazards	Toxic to aquatic life with long lasting effects

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Chemical name	CAS No	Weight-%
Alkanes, C7-8-iso-	70024-92-9	100

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret. \*\*

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

General Advice	: Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later. Do not leave the victim unattended.
Eye Contact	: Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
Skin Contact	: If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
Inhalation	: Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice.
Ingestion	: Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

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

Symptoms	: Causes skin irritation. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways.
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#### 4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician	: Treat symptomatically.
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### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Alcohol resistant foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemical.
Unsuitable extinguishing media	: High volume water jet.

#### 5.2. Specific hazards arising from the chemical

Hazards	: Highly flammable liquid and vapour.
Hazardous combustion products	: Carbon oxides.

#### 5.3. Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### SECTION 6: Accidental release measures

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

Personal Precautions	: Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
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#### 6.2. Environmental precautions

Environmental precautions	: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities. See Section 12 for additional Ecological Information.
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#### 6.3. Methods and material for containment and cleaning up

Methods for Containment	: Prevent further leakage or spillage if safe to do so.
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Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Advice on Safe Handling : Avoid formation of aerosol. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations. Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

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

Storage conditions : No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations/working materials must comply with the technological safety standards.

Incompatible materials : May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Exposure Guidelines

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

#### 8.2. Appropriate engineering controls

Engineering controls : Adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

#### 8.3. Individual protection measures, such as personal protective equipment

Eye/Face Protection : Eye wash bottle with pure water. Tightly fitting safety goggles.

Skin and Body Protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place. Wear as appropriate: Protective suit. Safety shoes. The suitability for a specific workplace should be discussed with the producers of the protective gloves. 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. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Respiratory Protection : Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as: Air-Purifying Respirator for Organic Vapors. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

General Hygiene Considerations : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

### SECTION 9: Physical and chemical properties

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

Physical state : Liquid

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Appearance	: Not determined
Color	: Colorless at room temperature
Odor	: Mild
Odor threshold	: Not determined
pH	: Not determined
Melting point/freezing point	: Not determined
Boiling point	: 93.3-104.4 °C / 199.9-219.9 °F
Flash point	: -11 °C / 12 °F
Evaporation rate	: 1
Flammability (solid, gas)	: Liquid-Not applicable
Flammability Limit in Air	
Upper flammability or explosive limits	: Not determined
Lower flammability or explosive limits	: Not determined
Vapor pressure	: 114.64 mmHg
Vapor density	: 2 (Air=1)
Relative density	: 0.697
Water Solubility	: Negligible
Solubility in other solvents	: Not determined
Partition Coefficient	: Not determined
Auto-ignition temperature	: 420 °C / 788 °F
Decomposition temperature	: Not determined
Kinematic Viscosity	: 0.56 cSt
Dynamic Viscosity	: Not determined
Explosive properties	: Not determined
Oxidizing properties	: Not determined

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Not reactive under normal conditions.

#### 10.2. Chemical stability

Stable under recommended storage conditions.

#### 10.3. Possibility of hazardous reactions

None under normal processing.

#### 10.4. Conditions to avoid

Heat, flames and sparks.

#### 10.5. Incompatible materials

May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

#### 10.6. Hazardous decomposition products

Carbon oxides.

### SECTION 11: Toxicological information

#### 11.1. Information on likely routes of exposure

##### Product Information

Inhalation	: Do not inhale.
Eye Contact	: Avoid contact with eyes.
Skin Contact	: Avoid contact with skin.
Ingestion	: Do not ingest.

#### 11.2. Component Information

Not available

#### 11.3 Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	: Please see section 4 of this SDS for symptoms.
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#### 11.4. Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	: Causes skin irritation.
Carcinogenicity	: Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
STOT – single exposure	: May cause drowsiness or dizziness.

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Aspiration hazard : May be fatal if swallowed and enters airways

### 11.5. Numerical measures of toxicity

Not determined.

## SECTION 12: Ecological information

### 12.1. Ecotoxicity

Toxic to aquatic life with long lasting effects.

### 12.2. Component Information

Not available

### 12.3. Persistence/Degradability

Not determined.

### 12.4. Bioaccumulation

There is no data for this product.

### 12.5. Mobility

Not determined

### 12.6. Other adverse effects

Not determined

## SECTION 13: Disposal considerations

### 13.1. Waste Treatment Methods

Disposal of Wastes : Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging : Disposal should be in accordance with applicable regional, national and local laws and regulations.

## SECTION 14: Transport information

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

### 14.1. DOT

UN/ID No : UN1993

Proper Shipping Name : Flammable liquids, n.o.s. (Alkanes, C7-8-iso-)

Hazard class : 3

Packing Group : II

### 14.2. IATA

UN number : UN1993

Proper Shipping Name : Flammable liquids, n.o.s. (Alkanes, C7-8-iso-)

Transport hazard class(es) : 3

Packing Group : II

### 14.3. IMDG

UN number : UN1993

Proper Shipping Name : Flammable liquids, n.o.s. (Alkanes, C7-8-iso-)

Transport hazard class(es) : 3

Packing Group : II

## SECTION 15: Regulatory information

### 15.1. International Inventories

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELI NCS	PICCS	ENCS	IECSC	AICS	KECL
Alkanes, C7-8-iso-	X	ACTIVE	X	X				X	X

### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances

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*AICS - Australian Inventory of Chemical Substances*  
*KECL - Korean Existing and Evaluated Chemical Substances*

### 15.2. US Federal regulations

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

#### SARA 311/312 Hazard Categories

Acute Health Hazard	:	Yes
Chronic Health Hazard	:	No
Fire Hazard	:	Yes
Sudden Release of Pressure Hazard	:	No
Reactive Hazard	:	No

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

### 15.3. US State regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals.

### 15.4. U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

## SECTION 16: Other information

<b>NFPA</b>	<b>Health Hazards</b> 2	<b>Flammability</b> 3	<b>Instability</b> 0	<b>Special Hazards</b> Not determined
<b>HMIS</b>	<b>Health Hazards</b> Not determined	<b>Flammability</b> Not determined	<b>Physical hazards</b> Not determined	<b>Personal Protection</b> Not determined
Issue date	:	05-Oct-2021		
Revision Date:	:	20-Oct-2022		
Revision Note:	:	Regulatory update		

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.