

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

### 1.1. Product identifier

Product form	: Substance
Name	: Toluenesulfonamide
Trade name	: Ketjenflex 9S
EC-No.	: 215-578-1
CAS-No.	: 1333-07-9

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

#### 1.2.1. Relevant identified uses

Main use category	: Intermediate, Synthesis
Use of the substance/mixture	: See annex for more detailed information

#### 1.2.2. Uses advised against

Restrictions on use	: No information available
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### 1.3. Details of the supplier of the safety data sheet

#### Supplier

Axcentive SARL  
Chemin de Champouse  
13320 Bouc Bel Air - France  
T +33 442 694 090 - F +33 442 694 099  
[info@axcentive.com](mailto:info@axcentive.com)

#### Supplier

Axcentive Asia Pte Ltd  
13 Lorong 8 Toa Payoh  
#07-01 Braddell Tech Park  
319261 Singapore  
T +65 6258 6338 - F +65 6258 6901  
[info@axcentive.com](mailto:info@axcentive.com)

### 1.4. Emergency telephone number

Emergency number	: GLOBAL INCIDENT RESPONSE HOTLINE (ACCESS CODE: 333881): Europe: +44-2035147487, North-America: 1.866.519.4752, South-America: 1.760.476.3961, Asia Pacific: +86-4001203572, Middle East/Africa: 1-760-476-3959, Australia: +61-280363166, New Zealand: +64 800 451719
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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

#### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Other information	: UFI: Not required, Nano material: Not required.
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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Name	Product identifier	Conc. (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Toluenesulfonamide	(CAS-No.) 1333-07-9 (EC-No.) 215-578-1 (REACH-no) 01-2119966136-33	100	Not classified

#### 3.2. Mixtures

Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: No hazards which require special first aid measures.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms occur.
First-aid measures after skin contact	: Wash skin with plenty of water and soap. Remove contaminated clothing and shoes. Get medical attention immediately if symptoms occur.
First-aid measures after eye contact	: Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Get medical attention immediately if symptoms occur.
First-aid measures after ingestion	: Rinse mouth with water. Drink plenty of water. Get medical attention immediately if symptoms occur.

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

Symptoms/effects : No acute and delayed symptoms and effects are observed.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Water spray. Carbon dioxide.
Unsuitable extinguishing media	: None known.

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

Hazardous decomposition products in case of fire : Toxic fumes may be released. Nitrogen oxides. Sulphur oxides.

#### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

Protective equipment : Refer to section 8.2. Remove contaminated clothing and shoes.

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Emergency procedures : Evacuate unnecessary personnel. Do not breathe dust. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

## 6.2. Environmental precautions

Avoid release to the environment.

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

For containment : Stop leak if safe to do so.  
Methods for cleaning up : Avoid dust formation. Shovel or sweep up and put in a closed container for disposal. After cleaning, flush traces away with water.  
Other information : Dispose of materials or solid residues at an authorized site.

## 6.4. Reference to other sections

See sections 8 and 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety practice. Ensure good ventilation of the work station. Avoid dust formation. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Keep container tightly closed in a cool, well-ventilated place. Store in original container. Protect from moisture.  
Incompatible materials : Acids.  
Heat and ignition sources : Keep away from heat, sparks and flames.

### 7.3. Specific end use(s)

See annex for more detailed information.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	Refer to European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) or equivalent national standard(s). Refer to European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) or equivalent national standard(s). Refer to European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) or equivalent national standard(s).
Biological monitoring methods	Not established

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### 8.1.3. Air contaminants formed

No additional information available

### 8.1.4. DNEL and PNEC

Toluenesulfonamide (1333-07-9)	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	4.2 mg/kg bw/day
Long-term - systemic effects, inhalation	5.9 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	0.5 mg/kg bw/day
Long-term - systemic effects, inhalation	1.7 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	2.5 mg/kg bw/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.15 mg/l
PNEC aqua (marine water)	0.15 mg/l
PNEC aqua (intermittent, freshwater)	1.2 mg/l
<b>PNEC (Soil)</b>	
PNEC soil	0.159 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	1.05 mg/l

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure adequate ventilation, especially in confined areas.

### 8.2.2. Personal protection equipment

#### Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

Eye protection:			
Type	Use	Characteristics	Standard
Safety glasses with side shields		clear	EN 166

#### 8.2.2.2. Skin protection

Skin and body protection:	
Wear suitable protective clothing	
Type	Standard
Long sleeved protective clothing	EN ISO 13982

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<b>Hand protection:</b>					
Protective gloves					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Protective gloves	Nitrile rubber (NBR), Butyl rubber, Polyvinylchloride (PVC), Viton® II, Neoprene rubber (HNBR)	6 (> 480 minutes), 5 (> 240 minutes)	0.13		EN 374
<b>Other skin protection</b>					
<b>Materials for protective clothing:</b>					
Long sleeved protective clothing					

### 8.2.2.3. Respiratory protection

<b>Respiratory protection:</b>			
In case of insufficient ventilation, wear suitable respiratory equipment			
Device	Filter type	Condition	Standard
Dust mask	Type FFP2	Measures in case of dust release	EN 149, EN 143

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Other exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

#### Other information:

Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

## SECTION 9: Physical and chemical properties

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

Physical state	: Solid
Colour	: White, Off-white
Appearance	: Crystalline powder
Odour	: Almost odourless
Odour threshold	: Not available
Melting point	: 109 – 113 °C
Freezing point	: Not applicable
Boiling point	: Decomposes
Flammability	: Not applicable Non flammable.
Explosive properties	: Not explosive
Explosive limits	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: 188 °C
pH	: Slightly acidic
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Solubility	: Water: 5.1 g/l (25°C)
Partition coefficient n-octanol/water (Log Pow)	: 0.6
Vapour pressure	: 0.04 kPa (22°C)

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Density	: Not available
Relative density	: 1.377 (20°C)
Relative vapour density at 20°C	: Not relevant
Particle size	: Not available
Particle size distribution	: Not available

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

Oxidising properties : Non oxidizing

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Hazardous polymerisation: Will not occur.

### 10.4. Conditions to avoid

Protect from moisture. Keep away from heat, sparks and flames.

### 10.5. Incompatible materials

Acids.

### 10.6. Hazardous decomposition products

Toxic fumes may be released. Nitrogen oxides. Sulphur oxides.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Toluenesulfonamide (1333-07-9)	
LD50 oral rat	2400 mg/kg (OECD 401 method)
LD50 dermal rabbit	7.5 mg/kg

Skin corrosion/irritation	: May cause skin irritation pH: Slightly acidic
Serious eye damage/irritation	: Not irritating. Dust contact with the eyes can lead to mechanical irritation pH: Slightly acidic
Respiratory or skin sensitisation	: No known effects from this product.
Additional information	: Read-across Data PTSA/OTSA: Mouse (OECD 429 method)
Germ cell mutagenicity	: Not known to cause heritable genetic damage
Additional information	: Read-across Data PTSA/OTSA: Negative (OECD 471 method) Micronucleus test: Not mutagenic (OECD 474 method)
Carcinogenicity	: Contains no ingredient listed as a carcinogen
Reproductive toxicity	: Not known to cause birth defects or have a deleterious effect on a developing fetus. Not known to adversely affect reproductive functions and organs

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STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

### Toluenesulfonamide (1333-07-9)

Viscosity, kinematic	Not applicable
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## 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties	: Contains no substances identified as having endocrine disrupting properties
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### 11.2.2 Other information

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### Toluenesulfonamide (1333-07-9)

LC50 fish 1	120 mg/l Oncorhynchus mykiss (Rainbow trout)
EC50 Daphnia 1	210 mg/l Daphnia magna (Water flea) (OECD 202 method)
EC50 72h - Algae [1]	170 mg/l Pseudokirchneriella subcapitata (OECD 201 method)
NOEC chronic algae	7.7 mg/l Pseudokirchneriella subcapitata (OECD 201 method)

### 12.2. Persistence and degradability

### Toluenesulfonamide (1333-07-9)

Persistence and degradability	Readily biodegradable.
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### 12.3. Bioaccumulative potential

### Toluenesulfonamide (1333-07-9)

Bioconcentration factor (BCF REACH)	2.6
Partition coefficient n-octanol/water (Log Pow)	0.6
Bioaccumulative potential	No bioaccumulation potential.

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

### Toluenesulfonamide (1333-07-9)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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### 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : Contains no substances identified as having endocrine disrupting properties

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Product/Packaging disposal recommendations : Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### Inland waterway transport

Not regulated

#### Rail transport

Not regulated

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### 15.1.1. EU-Regulations

Not listed on REACH Annex XVII

Not listed on the REACH Candidate List

Not listed on REACH Annex XIV (Authorisation List)

Not listed on the PIC list (Regulation EU 649/2012)

Not listed on the POP list (Regulation EU 2019/1021)

##### 15.1.2. National regulations

No additional information available

#### 15.2. Chemical safety assessment

A chemical safety assessment has been carried out

### SECTION 16: Other information

#### Indication of changes:

SDS EU format according to COMMISSION REGULATION (EU) 2020/878. Full Layout. Exposure controls/personal protection. Occupational Exposure Limits. Toxicological information. Endocrine disrupting properties. Respiratory protection. Personal protection equipment.

#### Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF	Bioconcentration factor
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
NOEC	No-Observed Effect Concentration
PBT	Persistent Bioaccumulative Toxic
vPvB	Very Persistent and Very Bioaccumulative
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail

Safety Data Sheet applicable for regions : IE - Ireland;GB - United Kingdom

SDS EU (REACH Annex II) - RHDHV

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.