

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/16/2015

Reviewed on 07/16/2015

## 1 Identification

- **Product identifier**
- **Trade name:** W&SII Knifegrade
- **Article number:** I024420-2
- **Application of the substance / the mixture** Polyester resin
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Company Name: Axson USA, Inc.
  
- Headquarters:  
31200 Stephenson Hwy  
Madison Heights, MI 48071  
USA
  
- ehs-us@axson.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
During normal opening times: +1(248) 588-2270  
Chemtec 24-hour Emergency: +1 (800) 424-9300

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS08 Health hazard

Carc. 1A H350 May cause cancer.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02



GHS07



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
Styrene  
ethanol  
2,2'-[(4-methylphenyl)imino]bisethanol

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- **Hazard statements**

Flammable liquid and vapour.  
Harmful if swallowed.  
May cause cancer.

- **Precautionary statements**

If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use.  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Wear protective gloves / eye protection / face protection.  
Wear protective gloves / protective clothing.  
Ground/bond container and receiving equipment.  
Keep container tightly closed.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
If swallowed: Call a poison center/doctor if you feel unwell.  
IF exposed or concerned: Get medical advice/attention.  
Rinse mouth.  
In case of fire: Use for extinction: CO2, powder or water spray.  
Store locked up.  
Store in a well-ventilated place. Keep cool.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	3	Fire = 3
REACTIVITY	0	Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 100-42-5	Styrene	25-50%
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CAS: 112945-52-5	Fumed silica - untreated	5-<10%
CAS: 64-17-5 EINECS: 200-578-6	ethanol	0.1-<1%

## 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.

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- **Information about protection against explosions and fires:**  
 Keep ignition sources away - Do not smoke.  
 Protect from heat.  
 Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
 Keep receptacle tightly sealed.  
 Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

#### 100-42-5 Styrene

ACGIH TLV	Short-term value: 170 at 40 ppm mg/m <sup>3</sup> Long-term value: 85 at 20 ppm mg/m <sup>3</sup>
OSHA PEL	Long-term value: 100 ppm mg/m <sup>3</sup> Ceiling limit value: 200 ppm mg/m <sup>3</sup>

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Wash hands before breaks and at the end of work.
- **Breathing equipment:**  
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**  
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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## · Eye protection:



Tightly sealed goggles

## 9 Physical and chemical properties

## · Information on basic physical and chemical properties

## · General Information

## · Appearance:

· Form:	Paste
· Color:	Honey
· Odor:	Aromatic
· Odour threshold:	Not determined.

· pH-value: Not determined.

## · Change in condition

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	145 °C (293 °F)

· Flash point: 31 °C (88 °F)

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 490 °C (914 °F)

· Decomposition temperature: Not determined.

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

## · Explosion limits:

· Lower:	0.9 Vol %
· Upper:	6.8 Vol %

· Vapor pressure at 20 °C (68 °F): 6 hPa (5 mm Hg)

· Density at 20 °C (68 °F): 1.06 g/cm<sup>3</sup> (8.846 lbs/gal)

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

## · Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

## · Viscosity:

· Dynamic:	Not determined.
· Kinematic:	Not determined.

## · Solvent content:

· Organic solvents:	0.8 %
· VOC content:	37.4 %
	396.5 g/l / 3.31 lb/gl

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- |                          |  |
|--------------------------|--|
| <b>Solids content:</b>   | 7.5 %                                      |
| <b>Other information</b> | No further relevant information available. |

## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

### 100-42-5 Styrene

Oral	LD50	316 mg/kg (mouse) 2650 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)
Inhalative	LC50/4 h	11.8 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

64-17-5	ethanol	I
108-10-1	4-methylpentan-2-one	2B

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.

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- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- |   |                            |
|---|----------------------------|
| <b>UN-Number</b>  | UN1866                     |
| <b>DOT, IMDG, IATA</b>  |                            |
| <b>UN proper shipping name</b>  | Resin solution             |
| <b>DOT</b>  | RESIN SOLUTION             |
| <b>IMDG, IATA</b>   |                            |
| <b>Transport hazard class(es)</b>   |                            |
| <b>DOT</b>  |                            |
|  |                            |
| <b>Class</b>  | 3 Flammable liquids        |
| <b>Label</b>  | 3                          |
|   |                            |
| <b>IMDG, IATA</b>   |                            |
|  |                            |
| <b>Class</b>  | 3 Flammable liquids        |
| <b>Label</b>  | 3                          |
| <b>Packing group</b>  | III                        |
| <b>DOT, IMDG, IATA</b>  |                            |
| <b>Environmental hazards:</b>   |                            |
| <b>Marine pollutant:</b>  | No                         |
| <b>Special precautions for user</b>   | Warning: Flammable liquids |

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· <b>EMS Number:</b>	<u>F-E,S-E</u>
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN1866, Resin solution, 3, III

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

### · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

### · Section 313 (Specific toxic chemical listings):

108-10-1 | 4-methylpentan-2-one

### · TSCA (Toxic Substances Control Act):

All ingredients are listed.

### · Proposition 65

#### · Chemicals known to cause cancer:

108-10-1 | 4-methylpentan-2-one

#### · Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

#### · Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

#### · Chemicals known to cause developmental toxicity:

64-17-5 | ethanol

108-10-1 | 4-methylpentan-2-one

#### · Carcinogenic categories

##### · EPA (Environmental Protection Agency)

108-10-1 | 4-methylpentan-2-one

I

142-82-5 | heptane

D

##### · TLV (Threshold Limit Value established by ACGIH)

64-17-5 | ethanol

A3

##### · NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

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· **Hazard pictograms**

GHS02   GHS07   GHS08

· **Signal word** *Danger*· **Hazard-determining components of labeling:***Styrene**ethanol**2,2'-[(4-methylphenyl)imino]bisethanol*· **Hazard statements***Flammable liquid and vapour.**Harmful if swallowed.**May cause cancer.*· **Precautionary statements***If medical advice is needed, have product container or label at hand.**Keep out of reach of children.**Read label before use.**Keep away from heat/sparks/open flames/hot surfaces. - No smoking.**Use explosion-proof electrical/ventilating/lighting/equipment.**Wear protective gloves / eye protection / face protection.**Wear protective gloves / protective clothing.**Ground/bond container and receiving equipment.**Keep container tightly closed.**Use only non-sparking tools.**Take precautionary measures against static discharge.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.**If swallowed: Call a poison center/doctor if you feel unwell.**IF exposed or concerned: Get medical advice/attention.**Rinse mouth.**In case of fire: Use for extinction: CO2, powder or water spray.**Store locked up.**Store in a well-ventilated place. Keep cool.**Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Date of preparation / last revision** 07/16/2015 / 6· **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

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*EINECS: European Inventory of Existing Commercial Chemical Substances*  
*ELINCS: European List of Notified Chemical Substances*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*NFPA: National Fire Protection Association (USA)*  
*HMIS: Hazardous Materials Identification System (USA)*  
*VOC: Volatile Organic Compounds (USA, EU)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*  
*Flam. Liq. 3: Flammable liquids, Hazard Category 3*  
*Acute Tox. 4: Acute toxicity, Hazard Category 4*  
*Carc. 1A: Carcinogenicity, Hazard Category 1A*

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