

# Material Safety Data Sheet


## Troy<sup>®</sup> 480SL




Date of issue: 30<sup>th</sup> May, 2009

<b>1) Identification of Substance:</b>		
Product name:	Troy 480SL	
Active Ingredient(s):	Bentazone 480g/L	
ACVM Approval:	P7236	
ERMA Approval:	HSR000426	
Distributed by:	Adria Crop Protection P.O. Box 535 Kumeu 1250, Auckland Ph: 09-412-9817 Fax: 09-412-9807 <a href="http://www.adriacp.co.nz">www.adriacp.co.nz</a>	
Emergency Number:	National Poisons Centre 0800 POISON 0800 764 766	
<b>2) Hazards Identification:</b>		
HSNO Classifications:	6.1D, 6.4A, 6.5B, 9.1C, 9.3C	
Physical hazards	May be harmful if swallowed, inhaled or absorbed through the skin.	
Human health hazards	Irritating to eyes. May cause sensitisation by skin contact.	
Environmental hazards	Toxic to aquatic organisms.	
<b>3) Composition Details:</b>		
Chemical identity:	Mixture of bentazone, sodium hydroxide (33 %), a blend of non-ionic surfactants and water.	
Chemical identity of ingredients:		
Ingredient:	CAS No.:	Content (%w/v)
Bentazone	25057-89-0	480g/l
NaOH (33 %)	1310-73-2	10-30%
Blend of non-ionic surfactants		1-5%
<b>4) First Aid Measures:</b>		
General Information:		
Skin contact:	Remove contaminated clothing, rinse skin with plenty of water of shower and call a doctor, if necessary.	
Eye contact:	Rinse with plenty of water (remove lenses if possible). Do not flush into direction of other eye. Transport to a doctor.	
Ingestion:	Rinse mouth and call a doctor or transport to hospital. For advice, contact the National Poisons Centre on 0800 POISON (0800 764766).	

Inhalation:	Move victim to fresh air, keep at rest and call a doctor.
Note to Physician:	No specific antidote. Supportive care. Treat symptomatically.
<b>5) Fire-Fighting Measures:</b>	
Fire hazard	Not combustible.
Prevention	Keep away from sources of ignition. No smoking.
Extinguishing media	<b>Suitable:</b> Dry chemical, carbon dioxide, foam, water. <b>Unsuitable:</b> -
Special Hazards	In case of fire bentazone decomposes to form toxic gas/vapour (sulphur oxide, nitrogen oxide).
Other procedures	Keep drums cool by spraying with water, extra personal protection: self-contained breathing apparatus.
<b>6) Accidental Release Measures:</b>	
Personal precautions:	Ventilation. Gloves, protective clothing, face shield. Avoid heat, flames, sparks and other sources of ignition.
Environmental precautions	Prevent spillage into the soil or aquatic environment. Avoid contact with vegetation and crops.
Clean up methods	Contain and collect spillage with non-combustible absorbent materials e.g. sand, earth, vermiculite, diatomaceous earth. Place in container for disposal according to local regulations.
<b>7) Handling &amp; Storage:</b>	
Handling precautions	Thoroughly wash hands after work, before eating or smoking. Do not eat, drink or smoke during work. Avoid contact with skin, eyes and clothes. Do not breathe vapour or spray.
Storage	Store in a dry well ventilated place. Keep away from sources of ignition and oxidising materials. Keep separated from incompatible substances.
<b>8) Exposure Control / Personal Protection:</b>	
Exposure control limits: <b>Bentazone:</b>	No exposure limits established
Personal protection	
Respiratory protection	In case of spray: ventilation, local exhaust or breathing protection (Filter respirator).
Hand/skin protection	Gloves (rubber), protective clothing.
Eye/face protection	Safety goggles.
Ingestion	Do not eat, drink or smoke during work.

<b>9) Physical &amp; Chemical Properties:</b>	
Appearance	Clear Liquid
Colour:	Brown
Odour:	Chemical
Boiling point:	100 °C
Flash point:	> 80 °C
Density:	1.19
Surface tension [mN/m]:	-
pH:	8.13
pH (1%)	6.79
Ignition Temperature: [°C]:	-
Explosive Limits:	-
Viscosity:	12.11-14.20 mPas
Solubility in water	Miscible.
<b>10) Stability &amp; Reactivity:</b>	
Chemical stability	Stable at normal temperature and pressure
Hazardous reaction-products	In case of fire, nitrogen oxides, sulphur dioxide and carbon monoxide may be produced.
Conditions to avoid	Oxidising agents. Avoid heat, flames, sparks and other sources of ignition.
Hazardous decomposition	Bentazone decomposes when exposed to UVlight.
<b>11) Toxicological Information:</b>	
<b>Bentazone 480 g/l SL</b> - Acute LD50 oral (rats) - Acute LD50 dermal (rats)  Irritation - Skin - Eye - Sensitisation	> 2000 mg/kg b.w. > 4000 mg/kg b.w.  Mildly irritating (rabbit) Moderately irritating (rabbit) Sensitizing
<b>Bentazone</b> Toxicity data - LD50 oral, rat - LD50 dermal, rat - LC50 (4h), rat Irritation - Skin - Eye - Sensitisation	1400-1800 mg/kg > 5000 mg/kg > 5.1 mg/l  Non Irritant Irritant Sensitiser (M&K)

<b>12) Ecological Information:</b>	
<p><b>Bentazone 480 g/l SL</b></p> <p><u>Aquatic organisms</u>  LC50 (96h) rainbow trout &gt; 250 mg/l  EC50 (48h) <i>Daphnia magna</i> &gt; 248 mg/l  EBC50 <i>Algae</i> 109 mg/l  ERC50 <i>Algae</i> 251 mg/l  EC50 (21 d) <i>Daphnia Magna</i> &gt; 250 mg/l (survival)  NOEC (21 d) <i>Daphnia Magna</i> 250 mg/l (survival)  EC50 (21 d) <i>Daphnia Magna</i> 236 mg/l (reproduction)  NOEC (21 d) <i>Daphnia Magna</i> 100 mg/l (reproduction)  LC50 (14 d) rainbow trout 102 mg/l (juvenile growth)  LC50 (28 d) rainbow trout 68 mg/l (juvenile growth)</p> <p><u>Beneficial arthropods</u>  <i>Aphidius rhopalosiphi</i> Harmful (category 4)  LR50 (48 h) <i>Aphidius rhopalosiphi</i> 1020 µl/l  <i>Typhlodromus pyri</i> Slightly harmful (category 2)  <i>Poecilus cupreus</i> Harmless (category 1)  <i>Chrysoperla carnea</i> Harmless (category 1)</p> <p><b>Bentazone</b></p> <p><u>Birds</u>  LD50 acute, oral bobwhite quail ca. 1140 mg/kg  LC50 bobwhite quail &gt; 5000 ppm  LC50 mallard duck &gt; 5000 ppm</p> <p><u>Aquatic organisms</u>  LC50 (96 h) <i>O. mykiss</i> &gt; 100 mg/l  EC50 (96 h) <i>Daphnia magna</i> 64 mg/l  EC50 (120 h) <i>A. flos-aque</i> : 10.1 mg/l  EC50 (14 d) <i>L. gibba</i> : 5.4 mg/l</p> <p><u>Bees</u>  Acute oral toxicity &gt; 200 µg a.s./bee  Acute contact toxicity &gt; 200 µg a.s./bee</p> <p><u>Worms</u>  LC50 earthworms &gt; 870 mg a.s./kg dry weight substrate</p>	
On ingredients	See Heading: Information on ingredients.
<b>13) Disposal Considerations:</b>	
Disposal: 	Triple rinse container and add residue to spray tank. Return empty container to an AgRecovery collection point for disposal.
Empty container precautions:	Avoid contamination of any water supply with chemical or empty container.

<b>14) Transportation Information:</b>	
Rail/road (RID/ADR):	UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE (bentazone 480%SL), 9, III Class: 9 Packaging Group III UN: 3082  
Sea (IMDG code):	UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE (bentazone 480%SL), 9, III Class: 9 Packaging Group III UN: 3082 Marine Pollutant  
Air (ICAO/IATA):	UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE (bentazone 480%SL), 9, III Class: 9 Packaging Group III UN: 3082  
<b>15) Regulatory Information:</b>	
Approved handlers:	This product must be under the care of an approved handler during use.
Tracking:	No.
ACVM controls:	See <a href="http://www.nzfsa.govt.nz/acvm/">www.nzfsa.govt.nz/acvm/</a> for registration conditions.

**DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

**End of document**