

## SAFETY DATA SHEET

### Section 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

<b>Product Name:</b>	<b>CHESS WG</b>
<b>Design Code:</b>	A9364J
<b>Recommended Use:</b>	For the control of Aphids on Lettuce, Potatoes, Tamarillos, Tomatoes, Vegetable Brassicas and Green Peach Aphid on Peaches and Nectarines and Whitefly on Tamarillos and Tomatoes.
<b>Company Details:</b>	<b>Syngenta Crop Protection Limited</b>
<b>Address:</b>	<b>Tower II, Level 7, 110 Symonds Street Private Bag 92618, Symonds Street AUCKLAND NEW ZEALAND</b>
<b>Telephone number:</b>	(weekdays) 09 - 306 1500
<b>Emergency Telephone number:</b>	(24 Hours) 0800 734 607
<b>National Poisons &amp; Hazchem Information Centre :</b>	0800 POISON (0800 764 766)
<b>Date of Preparation:</b>	6 March, 2013

### Section 2: HAZARDS IDENTIFICATION

<b>Hazard classification:</b>	6.9B, 9.1C
<b>Priority Identifier:</b>	WARNING KEEP OUT OF REACH OF CHILDREN
<b>Secondary Identifiers:</b>	6.9B = May cause reproductive organ damage from repeated oral exposure at high doses. 9.1C = Harmful to aquatic organisms.

### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

<i>Pure Substance:</i>	
<b>Chemical Identity of pure substance:</b>	(E)-4,5-dihydro-6-methyl-4-[(3-pyridinylmethylene)amino]-1,2,4-triazin-3(2H)-one
<b>Common Name:</b>	Pymetrozine
<b>Synonyms:</b>	CGA 215944
<b>CAS number:</b>	123312-89-0

<i>Mixture:</i>		
<b>Chemical Identity of ingredients:</b>		
<b>Ingredient</b>	<b>CAS no.</b>	<b>Content (% w/w)</b>
<b>Pymetrozine (technical grade)</b>	123312-89-0	50
naphthalenesulfonic acid, dibutyl-sodium salt	25417-20-3	5-10
other ingredients determined not to be hazardous	-	to 100%

## Section 4: FIRST AID MEASURES

<b>Necessary First Aid measures:</b>	For advice contact the National Poisons Centre on 0800 POISON (0800 764 766) or a doctor immediately. Begin artificial respiration if the victim is not breathing. Use mouth to nose rather than mouth to mouth. Obtain medical attention.  Swallowed: If swallowed <b>DO NOT</b> induce vomiting. Eye: If dust from concentrate or spray solution enters the eyes wash it out immediately with water. Remove contact lenses. Skin: If skin contact occurs remove contaminated clothing and wash affected areas thoroughly with running water. Inhaled: If inhaled move the victim to fresh air immediately.
<b>Poisoning symptoms:</b>	No case of human poisoning due to this product is on record. The poisoning symptoms observed for laboratory mammals were non-specific.
<b>Workplace facilities:</b>	No specific facilities required. Standard emergency equipment must be available.
<b>Hygiene Practices:</b>	Avoid contact with skin and eyes and inhalation of dust from concentrate or spray mist. When mixing or applying, wear protective clothing, including face shield, impervious gloves and footwear. If clothing becomes contaminated with product, remove clothing immediately. <b>DO NOT</b> eat, drink or smoke while using. Wash hands and exposed skin thoroughly with soap and water before meals and after work. Wash protective clothing daily after work.
<b>Notes for Medical Personnel:</b>	No specific antidote is available. If poisoning is suspected apply symptomatic therapy.

## Section 5: FIRE-FIGHTING MEASURES

<b>Type of Hazard:</b>	Not flammable.
<b>Fire Hazard Properties:</b>	Can decompose at high temperatures forming toxic gases. During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.
<b>Regulatory Requirements:</b>	not required
<b>Extinguishing Media and methods:</b>	Extinguish warehouse and factory fires using dry chemical extinguisher, alcohol-resistant foam, carbon dioxide or fine-water spray. <b>DO NOT</b> use solid water stream as it may scatter and spread fire.
<b>Hazchem Code:</b>	not applicable
<b>Recommended Protective Clothing:</b>	When fighting a major fire wear an air-supplied respirator. Wear protective equipment.

## Section 6: ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	<b>Emergency Procedures:</b> Ensure suitable personal protection during removal of spillages. This means wearing eye protection, chemically resistant gloves, boots and overalls.
<b>Environmental Precautions:</b>	Washings must be prevented from entering surface water drains or waterways.
<b>Procedure for spill:</b>	<ol style="list-style-type: none"><li>(1) Keep all bystanders away.</li><li>(2) Wear goggles, half face-piece respirator with combined dust and vapour cartridge, full length clothing and PVC gloves.</li><li>(3) Reposition any leaking containers so as to minimise further leakage.</li><li>(4) Dam and absorb spill with an absorbent material (e.g. sand or soil).</li><li>(5) Shovel the absorbed spill into drums.</li><li>(6) Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.</li></ol>
<b>Procedure for Disposal:</b>	Disposal of the absorbed material will depend upon the extent of the spill. Contaminated material must be disposed of in accordance with all local authority requirements. It is suggested: <ul style="list-style-type: none"><li>• For quantities up to 50 litres of product bury in a secure approved landfill site.</li><li>• For quantities greater than 50 litres seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established.</li></ul>

## Section 7: HANDLING AND STORAGE

<b>Precautions for safe handling:</b>	<b>Handling:</b> This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents. This material can become readily charged in most operations.
<b>Regulatory Requirements:</b>	not required.
<b>Handling practices:</b>	Avoid contact with skin and eyes and inhalation of dust from concentrate or spray mist. When using, do not eat, drink or smoke. Wash face and hands before eating, drinking or smoking.
<b>Approved Handlers:</b>	not required.
<b>Conditions for Safe Storage:</b>	<b>Storage:</b> Keep out of reach of children. Keep in original containers and tightly closed. Keep away from food, drink and animal feeding stuffs. Store in a cool, dry, well ventilated place and protect from sunlight. Avoid temperatures below -10°C or above 35°C.
<b>Store Site Requirements:</b>	Signage and secondary containment will be required at sites holding 1000 litres or more of any product classified as 9.1C (eg CHESS)
<b>Packaging:</b>	Store in original container, tightly closed, away from foodstuffs.

## Section 8: EXPOSURE CONTROL / PERSONAL PROTECTION

ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

<b>Workplace Exposure Guidelines:</b>	
<b>Workplace Exposure Standards:</b>	Pymetrozine TWA: 0.8 mg/m <sup>3</sup> (Source: Syngenta)
<b>Application in the workplace:</b>	not required.
<b>Exposure standards outside the workplace:</b>	not required.
<b>Engineering controls:</b>	No special requirements. Product is used outdoors. Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. If airborne mists or vapours are generated, use local exhaust ventilation controls. Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.  Follow precaution statements on the label and the use and safety directions in Code of Practice for the Management of Agrichemical NZS8409.
<b>Personal Protection:</b>	Use only protective equipment bearing the mark of the Standards Association with Australia/ New Zealand. In case of heavy exposure, wear half face-piece respirator with combined dust and vapour cartridge, chemical resistant gloves and heavy duty cotton overalls.
<b>General Hygiene:</b>	Change work clothes daily. May irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale dust or spray mist. If product gets on skin immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	grey, beige to brown granules
<b>Odour:</b>	weak
<b>pH value</b>	7-11 at 1% w/v
<b>Minimum ignition temperature:</b>	550°C
<b>Dust explosion class:</b>	Forms flammable dust clouds
<b>Minimum ignition energy:</b>	>1 J
<b>Oxidising properties:</b>	not oxidising
<b>Explosive properties:</b>	not explosive
<b>Bulk Density:</b>	0.4-0.6 g/cm <sup>3</sup>
<b>Burning number:</b>	1 at 20°C 5 at 100°C

## Section 10: STABILITY AND REACTIVITY

<b>Stability of the Substance:</b>	Stable under standard conditions.
<b>Conditions to Avoid:</b>	none known
<b>Material to Avoid:</b>	none known
<b>Hazardous decomposition products</b>	Can decompose at high temperatures forming toxic gases
<b>Hazardous polymerisation</b>	Does not occur
<b>Specific Data</b>	not applicable

## Section 11: TOXICOLOGICAL INFORMATION

### HSNO Classifications:

6.9B = May cause reproductive organ damage from repeated oral exposure at high doses.

### Acute Effects (Undiluted product)

Swallowed:	LD <sub>50</sub>	>5000 mg/kg (rat)
Dermal absorption:	LD <sub>50</sub>	>2000 mg/kg (rat)
Inhaled:	LC <sub>50</sub> (4 h)	>3.09 mg/l air (rat)
<b>Irritation</b>		
Eye:	<b>NON-IRRITANT</b> (Rabbit / HSNO classification)	
Skin:	<b>NON-IRRITANT</b> (Rabbit / HSNO classification)	
<b>Sensitization</b>	<b>NOT A SENSITISER</b> (guinea pigs)	

### Chronic / Long Term Effects (Active Ingredient)

**Pymetrozine technical** has been extensively tested on laboratory mammals and in test-tube systems. Did not show mutagenic or teratogenic effects in animal experiments. Increased levels of liver tumours were observed at high doses in rats and mice. The relevance of these findings to humans is questionable. Did not show reproductive toxicity effects in animal experiments. No adverse effects in humans are expected at levels below the occupational exposure limit and when the product is handled and used according to the label.

## Section 12: ENVIRONMENTAL INFORMATION

### HSNO Classifications:

9.1C = Harmful to aquatic organisms.

The information presented below is for the active ingredient, pymetrozine. A thorough review of environmental information is not possible in this document.

### Ecotoxicity Effects

<b>Toxicity to Birds:</b>	LD <sub>50</sub> = <2000mg/kg (mallard duck and bobwhite quail)
<b>Acute toxicity to fish:</b>	LC <sub>50</sub> (96 h) = >100 ppm (Oncorhynchus mykiss [rainbow trout]) LC <sub>50</sub> (96 h) = >100 ppm (common carp)
<b>Toxicity to aquatic Invertebrates:</b>	EC <sub>50</sub> (48 h) = >100 mg/L (Daphnia magna (water flea))
<b>Toxicity to algae:</b>	ErC <sub>50</sub> (72 h) = >100 mg/L ( <i>Selenastrum capricornutum</i> [green algae])
<b>Toxicity to soil dwelling organisms:</b>	LC <sub>50</sub> (14 d) = 1098 mg/kg soil ( <i>Eisenia foetida</i> )
<b>Toxicity to Bees:</b>	LD50 ( 48 h0 oral >1.7ug/bee, contact >200ug/bee.

### Environmental Fate

The information presented here is for the active ingredient, Pymetrozine. Pymetrozine has low potential for bioaccumulation. Pymetrozine is not persistent in water. Pymetrozine is not persistent in soil. Pymetrozine has slight mobility in soil. Soil DT<sub>50</sub> 2-69 days. . Rapidly degraded in slightly acidic or sunlight-exposed surface water; DT<sub>50</sub> in surface water (typical value) 7 days. K<sub>ow</sub> Log P = -0.18. Hydrolysis DT 50 4.3h ( pH1) 25 dat-ys pH 5

### Section 13: DISPOSAL CONSIDERATIONS

<b>Product Disposal:</b>	Dispose of this product only by using according to the label, or at an approved landfill or other approved facility.
<b>Container Disposal:</b>	Ensure the container is empty. Rinse the container and add the residue to the spray tank. If allowed under local Territorial Authority District Plans, burn if circumstances, especially wind direction permit, otherwise crush and bury in an approved local authority facility. DO NOT reuse this container for any other purpose.

### Section 14: TRANSPORT INFORMATION

<b>Rail / Road (RID/ADR)</b>	Not classified as dangerous good
<b>Sea (IMDG-Code)</b>	Not classified as dangerous good
<b>Air (ICAO/IATA)</b>	Not classified as dangerous good

### Section 15: REGULATORY INFORMATION

<b>HSNO Approval Number:</b>	HSR000412
<b>HSNO Controls (inc. Tracking and Record Keeping):</b>	See <a href="http://www.epa.govt.nz/search-databases/Pages/controls-search.aspx">http://www.epa.govt.nz/search-databases/Pages/controls-search.aspx</a> for controls.
<b>ACVM Registration:</b>	P 5783
<b>ACVM Controls:</b>	See <a href="http://www.foodsafety.govt.nz/industry/acvm">www.foodsafety.govt.nz/industry/acvm</a> for registration conditions.

### Section 16: OTHER INFORMATION

**Note:** This product is a registered agricultural chemical and must therefore be used in accordance with the container label directions. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the Government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

**CONTACT POINT:** Business Manager - Crop Protection: (09) 306 1503  
**24 HOURS EMERGENCY CONTACT:** 0800 734 607

This Material Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

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#### DISCLAIMER

This product complies with the specifications in its statutory registration. Implied terms and warranties are excluded. Syngenta's liability for breach of the express or any non-excludable implied warranty is limited to product replacement or purchase price refund. The purchaser must determine suitability for intended purpose and take all proper precautions in the handling, storage and use of the product including those on the label and/or safety data sheet failing which Syngenta shall have no liability.