

AGRAL 90

Version 1.4 Revision Date: 09/27/2021 SDS Number: S172636468 This version replaces all previous versions.

SECTION 1. IDENTIFICATION

Product name : AGRAL 90
Design code : A12712A
Product Registration number : 11809
Other means of identification : No data available

Manufacturer or supplier's details

Company name of supplier : Syngenta Canada Inc.
Address : 140 Research Lane, Research Park
Guelph ON N1G 4Z3
Canada

Telephone : 1-87-SYNGENTA (1-877-964-3682)
Telefax : 1-519-823-0504

E-mail address :

Emergency telephone number : 1-800-327-8633 (FAST MED)

Recommended use of the chemical and restrictions on use

Recommended use : Adjuvants

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with the Hazardous Products Regulations**

Flammable liquids : Category 3
Acute toxicity (Oral) : Category 4
Serious eye damage : Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H318 Causes serious eye damage.

Precautionary statements : **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames

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and other ignition sources. No smoking.
 P233 Keep container tightly closed.
 P240 Ground and bond container and receiving equipment.
 P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
 P242 Use non-sparking tools.
 P243 Take action to prevent static discharges.
 P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
 P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy-	poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy-	9016-45-9	$\geq 80 - \leq 100$ *
2-methylpropan-1-ol	2-methylpropan-1-ol	78-83-1	$\geq 5 - < 10$ *

* Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : Have the product container, label or Safety Data Sheet with

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- you when calling the emergency number, a poison control center or physician, or going for treatment.
- If inhaled : Move the victim to fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Keep patient warm and at rest.
Call a physician or poison control centre immediately.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash off immediately with plenty of water.
If skin irritation persists, call a physician.
Wash contaminated clothing before re-use.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses.
Immediate medical attention is required.
- If swallowed : If swallowed, seek medical advice immediately and show this container or label.
Do NOT induce vomiting.
- Most important symptoms and effects, both acute and delayed : Nonspecific
No symptoms known or expected.
- Notes to physician : There is no specific antidote available.
Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Alcohol-resistant foam
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during fire-fighting : As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.
Flash back possible over considerable distance.
- Further information : Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.
- Special protective equipment for firefighters : Wear full protective clothing and self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
Keep people away from and upwind of spill/leak.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Remove all sources of ignition.

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Pay attention to flashback.

Environmental precautions : Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and 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).
Clean contaminated surface thoroughly.
Clean with detergents. Avoid solvents.
Retain and dispose of contaminated wash water.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Avoid contact with skin and eyes.
When using do not eat, drink or smoke.
Use only in an area containing flame proof equipment.
Take precautionary measures against static discharges.
For personal protection see section 8.

Conditions for safe storage : Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep out of the reach of children.
Keep away from combustible material.
Keep in an area equipped with sprinklers.
Keep away from food, drink and animal feedingstuffs.
No smoking.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
2-methylpropan-1-ol	78-83-1	TWA	50 ppm 152 mg/m ³	CA AB OEL
		TWA	50 ppm	CA BC OEL
		TWAEV	50 ppm 152 mg/m ³	CA QC OEL
		TWA	50 ppm	ACGIH

Engineering measures : THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THE PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.

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The extent of these protection measures depends on the actual risks in use.

Maintain air concentrations below occupational exposure standards.
Where necessary, seek additional occupational hygiene advice.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection

Remarks : Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. 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. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded.
Tightly fitting safety goggles
Face-shield

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Remove and wash contaminated clothing before re-use.
Wear as appropriate:

Protective measures : Impervious clothing
The use of technical measures should always have priority over the use of personal protective equipment.
When selecting personal protective equipment, seek appropriate professional advice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
Colour : pale yellowish
Odour : No data available

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Odour Threshold	:	No data available
pH	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	47 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	10 mmHg
Relative vapour density	:	No data available
Density	:	1.03 g/cm ³ (20 °C)
Solubility(ies)		
Water solubility	:	soluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	288 mPa.s (24.5 °C) 135 mPa.s (23 °C)
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Particle size	:	No data available

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SECTION 10. STABILITY AND REACTIVITY

Reactivity : None reasonably foreseeable.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.
Conditions to avoid : No decomposition if used as directed.
Incompatible materials : None known.
Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Ingestion
Inhalation
Skin contact
Eye contact

Acute toxicity**Product:**

Acute oral toxicity : Acute toxicity estimate: 534.19 mg/kg
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Components:**poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy-:**

Acute oral toxicity : LD50 (Rat): 200 - 2,000 mg/kg
Assessment: The component/mixture is moderately toxic after single ingestion.

2-methylpropan-1-ol:

Acute oral toxicity : LD50 (Rat): 2,830 - 3,350 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 24.6 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 - 2,460 mg/kg

Skin corrosion/irritation**Components:****2-methylpropan-1-ol:**

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Result : Irritating to skin.

Serious eye damage/eye irritation**Components:****poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy-:**

Result : Risk of serious damage to eyes.

2-methylpropan-1-ol:

Result : Risk of serious damage to eyes.

Respiratory or skin sensitisation**Components:****2-methylpropan-1-ol:**

Species : Guinea pig
Result : Did not cause sensitisation on laboratory animals.
Remarks : Information given is based on data obtained from similar substances.

STOT - single exposure**Components:****2-methylpropan-1-ol:**

Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy-:**

Toxicity to fish : LC50 (Fish): 1 - 12 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 12 - 17.7 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : IC50 (algae): 1 - 10 mg/l
Exposure time: 72 h

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Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.
 Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

2-methylpropan-1-ol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 1,430 mg/l
 Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia pulex (Water flea)): 1,100 mg/l
 Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Raphidocelis subcapitata (freshwater green alga)): 1,799 mg/l
 Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 20 mg/l
 Exposure time: 21 d

Persistence and degradability

Components:

poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy-:

Biodegradability : Result: Not readily biodegradable.

2-methylpropan-1-ol:

Biodegradability : Result: Readily biodegradable.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Components:

2-methylpropan-1-ol:

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Refer to the product label for specific disposal/recycling information
 Do not contaminate ponds, waterways or ditches with chemi-

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cal or used container.
Do not dispose of waste into sewer.
Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging : Refer to the product label for specific disposal/recycling information
Empty remaining contents.
Triple rinse containers.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 1993
Proper shipping name : FLAMMABLE LIQUID, N.O.S.
(ISOBUTANOL AND NONYLPHENOL ETHOXYLATE)
Class : 3
Packing group : III
Labels : 3

IATA-DGR

UN/ID No. : UN 1993
Proper shipping name : Flammable liquid, n.o.s.
(ISOBUTANOL AND NONYLPHENOL ETHOXYLATE)
Class : 3
Packing group : III
Labels : Flammable Liquids
Packing instruction (cargo aircraft) : 366
Packing instruction (passenger aircraft) : 355

IMDG-Code

UN number : UN 1993
Proper shipping name : FLAMMABLE LIQUID, N.O.S.
(ISOBUTANOL AND NONYLPHENOL ETHOXYLATE)
Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-E
Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

TDG

UN number : UN 1993

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Proper shipping name : FLAMMABLE LIQUID, N.O.S.
(ISOBUTANOL AND NONYLPHENOL ETHOXYLATE)

Class : 3
Packing group : III
Labels : 3
ERG Code : 128
Marine pollutant : yes(NONYLPHENOL ETHOXYLATE)
Remarks : Above applies only to containers over 119 gallons or 450 liters.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

Read the label, authorised under the Pest Control Products Act, prior to using or handling the pest control product

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. The following is the hazard information required on the pest control product label: There are Canada-specific environmental requirements for handling, use, and disposal of this pest control product that are indicated on the label.

NPRI Components : poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy-2-methylpropan-1-ol

The components of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

Canadian lists

No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
CA AB OEL : Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL : Canada. British Columbia OEL
CA QC OEL : Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for air-borne contaminants
ACGIH / TWA : 8-hour, time-weighted average
CA AB OEL / TWA : 8-hour Occupational exposure limit
CA BC OEL / TWA : 8-hour time weighted average
CA QC OEL / TWA EV : Time-weighted average exposure value

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AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Revision Date : 09/27/2021
Date format : mm/dd/yyyy

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.

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