

# SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/01/2023	50001276	Date of first issue: 03/01/2023

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### SECTION 1. IDENTIFICATION

#### Product identifier

**Product name** Cygon 480-AG Systemic Insecticide

#### Other means of identification

**Product code** 50001276

#### Recommended use of the chemical and restrictions on use

**Recommended use** Can be used as insecticide only.

**Restrictions on use** Use as recommended by the label.

#### Details of the supplier of the safety data sheet

**Manufacturer** FMC Corporation  
2929 WALNUT ST  
PHILADELPHIA PA 19104  
USA  
(215) 299-6000  
SDS-Info@fmc.com

#### Emergency telephone

For leak, fire, spill or accident emergencies, call:  
1 800 / 424-9300 (CHEMTREC - U.S.A.)  
1 703 / 741-5970 (CHEMTREC - International)  
1 703 / 527-3887 (CHEMTREC - Alternate)

Medical emergency:  
U.S.A. & Canada: +1 800 / 331-3148  
All other countries: +1 651 / 632-6793 (Collect)

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### SECTION 2. HAZARDS IDENTIFICATION

#### **GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

Flammable liquids	: Category 3
Acute toxicity (Oral)	: Category 4
Acute toxicity (Inhalation)	: Category 4
Skin irritation	: Category 2
Serious eye damage	: Category 1
Aspiration hazard	: Category 1

# SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/01/2023	50001276	Date of first issue: 03/01/2023

### GHS label elements

Hazard pictograms

:



Signal Word

:

Danger

Hazard Statements

:

H226 Flammable liquid and vapor.  
H302 + H332 Harmful if swallowed or if inhaled.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.

Precautionary Statements

:

#### Prevention:

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

#### Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.  
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.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P331 Do NOT induce vomiting.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P362 Take off contaminated clothing and wash before reuse.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

# SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version 1.0      Revision Date: 03/01/2023      SDS Number: 50001276      Date of last issue: -  
Date of first issue: 03/01/2023

### Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.

### Disposal:

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

### Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Components

Chemical name	CAS-No.	Concentration (% w/w)
dimethoate (ISO)	60-51-5	$\geq 30 - < 50$
cyclohexanone	108-94-1	$\geq 30 - < 50$
Solvent naphtha (petroleum), heavy arom.	64742-94-5	$\geq 10 - < 20$
4-Nonylphenol branched, ethoxylated	127087-87-0	$\geq 1 - < 5$

## SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this safety data sheet to the doctor in attendance.  
Symptoms of poisoning may appear several hours later.  
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician.  
If on skin, rinse well with water.  
If on clothes, remove clothes.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.  
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Continue rinsing eyes during transport to hospital.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Keep respiratory tract clear.  
Do NOT induce vomiting.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.

# SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version 1.0	Revision Date: 03/01/2023	SDS Number: 50001276	Date of last issue: - Date of first issue: 03/01/2023
----------------	------------------------------	-------------------------	--

If symptoms persist, call a physician.  
Take victim immediately to hospital.

Most important symptoms and effects, both acute and delayed : Harmful if swallowed or if inhaled.  
May be fatal if swallowed and enters airways.  
Causes skin irritation.  
Causes serious eye damage.  
Suspected of causing cancer.

Notes to physician : Treat symptomatically.

### SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : High volume water jet

Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Thermal decomposition can lead to release of irritating gases and vapors.  
phosphorus oxides  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon oxides  
Sulfur oxides

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
For safety reasons in case of fire, cans should be stored separately in closed containments.  
Use a water spray to cool fully closed containers.

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Ensure adequate ventilation.  
Remove all sources of ignition.  
Evacuate personnel to safe areas.  
Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform

## Cygon 480-AG Systemic Insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/01/2023	50001276	Date of first issue: 03/01/2023

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).

## SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from open flames, hot surfaces and sources of ignition.

Advice on safe handling : Avoid formation of aerosol. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage stability : No decomposition if stored and applied as directed.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
cyclohexanone	108-94-1	TWA	20 ppm	ACGIH
		STEL	50 ppm	ACGIH
		TWA	25 ppm 100 mg/m <sup>3</sup>	NIOSH REL

## SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version 1.0      Revision Date: 03/01/2023      SDS Number: 50001276      Date of last issue: -  
Date of first issue: 03/01/2023

		TWA	50 ppm 200 mg/m <sup>3</sup>	OSHA Z-1
		TWA	25 ppm 100 mg/m <sup>3</sup>	OSHA P0
Solvent naphtha (petroleum), heavy arom.	64742-94-5	TWA	200 mg/m <sup>3</sup> (total hydrocarbon vapor)	ACGIH

## Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sam-pling time	Permissible concentra-tion	Basis
dimethoate (ISO)	60-51-5	Acetylcho-linesterase activity	In red blood cells	End of shift	70 % of an individual's baseline	ACGIH BEI
		Butyrylcho-linesterase activity	In serum or plasma	End of shift	60 % of an individual's baseline	ACGIH BEI
cyclohexanone	108-94-1	1,2-Cyclohex-anediol	Urine	End of shift at end of work-week	80 mg/l	ACGIH BEI
		Cyclohexa-nol	Urine	End of shift (As soon as possible after exposure ceases)	8 mg/l	ACGIH BEI

## Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.
- Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles  
Wear face-shield and protective suit for abnormal processing problems.
- Skin and body protection : Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Hygiene measures : When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

# SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version 1.0	Revision Date: 03/01/2023	SDS Number: 50001276	Date of last issue: - Date of first issue: 03/01/2023
----------------	------------------------------	-------------------------	--

Appearance	:	suspension
Color	:	light yellow
Odor	:	characteristic
Odor Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	< 41 °F / 5 °C
Boiling point/boiling range	:	176 °F / 80 °C Decomposition: Decomposes below the boiling point.
Flash point	:	108 °F / 42 °C  Method: Pensky-Martens closed cup - PMCC
Evaporation rate	:	No data available
Self-ignition	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Relative density	:	No data available
Density	:	No data available
Bulk density	:	No data available
Solubility(ies)		
Water solubility	:	emulsifiable
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		

# SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version 1.0	Revision Date: 03/01/2023	SDS Number: 50001276	Date of last issue: - Date of first issue: 03/01/2023
----------------	------------------------------	-------------------------	--

Viscosity, dynamic	: 5 - 10 mPa.s (77 °F / 25 °C)
Viscosity, kinematic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

### SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: No decomposition if stored and applied as directed. Vapors may form explosive mixture with air.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Not applicable

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

Harmful if swallowed or if inhaled.

#### Product:

Acute oral toxicity	: LD50 Oral (Rat): 450 mg/kg Remarks: Based on data from similar materials
Acute inhalation toxicity	: LC50: 2.5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Remarks: Based on data from similar materials
Acute dermal toxicity	: LD50 Dermal (Rat): > 2,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity Remarks: Based on data from similar materials

#### Skin corrosion/irritation

Causes skin irritation.

#### Product:

Remarks	: No data is available on the product itself.
Remarks	: Extremely corrosive and destructive to tissue.

#### Serious eye damage/eye irritation

Causes serious eye damage.



## Cygon 480-AG Systemic Insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/01/2023	50001276	Date of first issue: 03/01/2023

**Product:**

Remarks : No data is available on the product itself.

Remarks : May cause irreversible eye damage.

**Respiratory or skin sensitization****Skin sensitization**

Not classified based on available information.

**Respiratory sensitization**

Not classified based on available information.

**Product:**

Remarks : No data is available on the product itself.

**Germ cell mutagenicity**

Not classified based on available information.

**Components:****dimethoate (ISO):**Genotoxicity in vivo : Method: OECD Test Guideline 478  
Result: negative**cyclohexanone:**Genotoxicity in vitro : Test Type: in vitro DNA damage and/or repair study  
Test system: human diploid fibroblasts  
Method: OECD Test Guideline 482  
Result: negativeTest Type: reverse mutation assay  
Method: OECD Test Guideline 471  
Result: negativeTest Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 476  
Result: negativeGenotoxicity in vivo : Test Type: chromosome aberration assay  
Species: Rat (male and female)  
Application Route: inhalation (vapor)  
Method: OECD Test Guideline 475  
Result: negativeTest Type: dominant lethal test  
Species: Rat (male and female)  
Application Route: inhalation (vapor)  
Method: OECD Test Guideline 478  
Result: negative

Species: Drosophila melanogaster (vinegar fly) (male and

# SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version 1.0	Revision Date: 03/01/2023	SDS Number: 50001276	Date of last issue: - Date of first issue: 03/01/2023
----------------	------------------------------	-------------------------	--

female)  
Application Route: Inhalation  
Method: OECD Test Guideline 477  
Result: negative

Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

### **Solvent naphtha (petroleum), heavy arom.:**

Genotoxicity in vitro : Test Type: reverse mutation assay  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Bone marrow chromosome aberration.  
Species: Rat  
Application Route: inhalation (vapor)  
Result: negative

### **Carcinogenicity**

Not classified based on available information.

### **Product:**

Remarks : Not classified

**IARC** No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP** No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

### **Reproductive toxicity**

Not classified based on available information.

### **Components:**

#### **dimethoate (ISO):**

Reproductive toxicity - Assessment : Animal testing showed no reproductive toxicity.

#### **cyclohexanone:**

Effects on fertility : Test Type: Two-generation study  
Species: Rat  
Application Route: inhalation (vapor)  
Dose: 1.02, 2.04, 4.1 mg/l  
General Toxicity Parent: NOAEC: 4.1 mg/l  
General Toxicity F1: NOAEC: 2.04 mg/l  
General Toxicity F2: NOAEC: 2.04 mg/l  
Result: negative

## Cygon 480-AG Systemic Insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/01/2023	50001276	Date of first issue: 03/01/2023

---

Effects on fetal development : Species: Rabbit  
Application Route: Oral  
Dose: 50, 250, 500 mg/kg b.w.  
General Toxicity Maternal: NOAEL: 250 mg/kg body weight  
Teratogenicity: NOAEL: 500 mg/kg body weight  
Method: OECD Test Guideline 414  
Result: No teratogenic effects.

Reproductive toxicity - Assessment : Animal testing did not show any effects on fertility.

**STOT-single exposure**

Not classified based on available information.

**Components:****dimethoate (ISO):**

Remarks : No significant adverse effects were reported

**STOT-repeated exposure**

Not classified based on available information.

**Components:****cyclohexanone:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Repeated dose toxicity****Components:****dimethoate (ISO):**

Species : Rat  
LOAEL : 2.5 mg/kg bw/day  
Exposure time : 90 days  
Symptoms : cholinesterase inhibition

**cyclohexanone:**

Species : Rat, male and female  
NOAEL : 143 mg/kg  
Application Route : Oral  
Exposure time : 90 d  
Dose : 40, 143 and 407 mg/kg b.w.  
Method : OECD Test Guideline 408

**Solvent naphtha (petroleum), heavy arom.:**

Species : Rat, male and female  
NOAEC : 0.9 - 1.8 mg/l  
Application Route : inhalation (vapor)  
Exposure time : 12 months

**Cygon 480-AG Systemic Insecticide**

Version 1.0	Revision Date: 03/01/2023	SDS Number: 50001276	Date of last issue: - Date of first issue: 03/01/2023
----------------	------------------------------	-------------------------	--

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**Aspiration toxicity**

May be fatal if swallowed and enters airways.

**Components:****dimethoate (ISO):**

The substance does not have properties associated with aspiration hazard potential.

**Solvent naphtha (petroleum), heavy arom.:**

May be fatal if swallowed and enters airways.

**Experience with human exposure****Components:****Solvent naphtha (petroleum), heavy arom.:**

Skin contact : Symptoms: Repeated exposure may cause skin dryness or cracking.

**Further information****Product:**

Remarks : Solvents may degrease the skin.

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Components:****dimethoate (ISO):**

Toxicity to fish	:	LC50 (Salmo gairdneri): 30.2 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 2 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	IC50 (Selenastrum capricornutum (green algae)): 90.4 mg/l Exposure time: 72 h
Toxicity to fish (Chronic toxicity)	:	NOEC (Salmo gairdneri): 0.4 mg/l Exposure time: 21 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0.04 mg/l Exposure time: 21 d
Toxicity to soil dwelling or-	:	LC50 (Eisenia fetida (earthworms)): 31 mg/kg dry weight

## Cygon 480-AG Systemic Insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/01/2023	50001276	Date of first issue: 03/01/2023

ganisms	(d.w.) Exposure time: 14 d
Toxicity to terrestrial organ-isms	: LD50 (Anas platyrhynchos (Mallard duck)): 42 mg/kg  LD50 (Colinus virginianus (Bobwhite quail)): 10.5 mg/kg  LD50 (Coturnix japonica (Japanese quail)): 84 mg/kg  LD50 (Phasianus colchicus (ring-necked pheasant)): 14.1 mg/kg  LD50 (Apis mellifera (bees)): 0.12 µg/bee Remarks: Contact  LD50 (Apis mellifera (bees)): 0.15 µg/bee Remarks: Oral
<b>cyclohexanone:</b>	
Toxicity to fish	: LC50 (Pimephales promelas (fathead minnow)): 527 - 732 mg/l Exposure time: 96 h Test Type: flow-through test
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants	: EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials  NOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials
Toxicity to microorganisms	: EC50 (activated sludge): > 1,000 mg/l Exposure time: 30 min Method: OECD Test Guideline 209
<b>Solvent naphtha (petroleum), heavy arom.:</b>	
Toxicity to fish	: LL50 (Oncorhynchus mykiss (rainbow trout)): 2 - 5 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EL50 (Daphnia magna (Water flea)): 1.4 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic	: EL50 (Pseudokirchneriella subcapitata (green algae)): 1 - 3

# SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/01/2023	50001276	Date of first issue: 03/01/2023

plants mg/l  
Exposure time: 24 h  
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EL50 (Daphnia magna (Water flea)): 0.89 mg/l  
Exposure time: 21 d  
Method: OECD Test Guideline 211

Toxicity to microorganisms : LL50 (Tetrahymena pyriformis): 677.9 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition

### 4-Nonylphenol branched, ethoxylated:

#### Ecotoxicology Assessment

Acute aquatic toxicity : Harmful to aquatic life.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

#### Persistence and degradability

##### Product:

Biodegradability : Remarks: Expected to be biodegradable

##### Components:

##### **dimethoate (ISO):**

Biodegradability : Result: Not readily biodegradable.

##### **cyclohexanone:**

Biodegradability : Result: Readily biodegradable.  
Method: OECD Test Guideline 301F

##### **Solvent naphtha (petroleum), heavy arom.:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 58.6 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F  
Remarks: Based on data from similar materials

### 4-Nonylphenol branched, ethoxylated:

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: < 60 %  
Exposure time: 28 d

#### Bioaccumulative potential

##### Product:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

# SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version 1.0	Revision Date: 03/01/2023	SDS Number: 50001276	Date of last issue: - Date of first issue: 03/01/2023
----------------	------------------------------	-------------------------	--

### Components:

#### **dimethoate (ISO):**

Bioaccumulation : Species: Salmo gairdneri  
Bioconcentration factor (BCF): > 1,000  
Remarks: Does not bioaccumulate.  
See section 9 for octanol-water partition coefficient.

Partition coefficient: n-octanol/water : log Pow: 0.704

#### **cyclohexanone:**

Partition coefficient: n-octanol/water : log Pow: 0.86 (77 °F / 25 °C)

#### **Solvent naphtha (petroleum), heavy arom.:**

Bioaccumulation : Remarks: The product/substance has a potential to bioaccumulate.

Partition coefficient: n-octanol/water : log Pow: 3.72  
Method: QSAR

### **Mobility in soil**

#### **Product:**

Mobility : Remarks: immobile

### Components:

#### **dimethoate (ISO):**

Distribution among environmental compartments : Remarks: Highly mobile in soils

Stability in soil :

#### **Solvent naphtha (petroleum), heavy arom.:**

Distribution among environmental compartments : Remarks: Expected to partition to sediment and wastewater solids. Moderately volatile.

### **Other adverse effects**

#### **Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances  
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

# SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/01/2023	50001276	Date of first issue: 03/01/2023

Very toxic to aquatic life with long lasting effects.

### Components:

#### **cyclohexanone:**

Additional ecological information : No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

### **Disposal methods**

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.  
Do not burn, or use a cutting torch on, the empty drum.

## SECTION 14. TRANSPORT INFORMATION

### **International Regulations**

#### **UNRTDG**

UN number : UN 1993  
Proper shipping name : FLAMMABLE LIQUID, N.O.S.  
(Cyclohexanone, Dimethoate)  
Class : 3  
Packing group : III  
Labels : 3

#### **IATA-DGR**

UN/ID No. : UN 1993  
Proper shipping name : Flammable liquid, n.o.s.  
(Cyclohexanone, Dimethoate)  
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.  
(Cyclohexanone, Dimethoate)  
Class : 3  
Packing group : III  
Labels : 3



# SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version 1.0      Revision Date: 03/01/2023      SDS Number: 50001276      Date of last issue: -  
Date of first issue: 03/01/2023

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.

### Domestic regulation

#### 49 CFR

UN/ID/NA number : UN 1993  
Proper shipping name : Flammable liquids, n.o.s.  
(, )  
Class : 3  
Packing group : III  
Labels : FLAMMABLE LIQUID  
ERG Code : 128  
Marine pollutant : yes

### 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

### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
dimethoate (ISO)	60-51-5	10	28
cyclohexanone	108-94-1	100	100 (F003)

### SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
dimethoate (ISO)	60-51-5	10	28

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

Components	CAS-No.	Component TPQ (lbs)
dimethoate (ISO)	60-51-5	10000
dimethoate (ISO)	60-51-5	500*

\*: Solid in the molten or powdered form (particles < 100 microns), in solution, or meeting the NFPA reactivity criteria

**SARA 311/312 Hazards** : Flammable (gases, aerosols, liquids, or solids)  
Acute toxicity (any route of exposure)  
Carcinogenicity  
Aspiration hazard  
Skin corrosion or irritation  
Serious eye damage or eye irritation

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

dimethoate (ISO) 60-51-5      >= 30 - < 50 %

# SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/01/2023	50001276	Date of first issue: 03/01/2023

### Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

cyclohexanone	108-94-1	>= 30 - < 50 %
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### Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

### US State Regulations

#### Massachusetts Right To Know

dimethoate (ISO)	60-51-5
cyclohexanone	108-94-1

#### Pennsylvania Right To Know

dimethoate (ISO)	60-51-5
cyclohexanone	108-94-1
Solvent naphtha (petroleum), heavy arom.	64742-94-5

#### Maine Chemicals of High Concern

Product does not contain any listed chemicals

#### Vermont Chemicals of High Concern

Product does not contain any listed chemicals

#### Washington Chemicals of High Concern

Product does not contain any listed chemicals

#### California List of Hazardous Substances

cyclohexanone	108-94-1
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#### California Permissible Exposure Limits for Chemical Contaminants

cyclohexanone	108-94-1
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### The ingredients of this product are reported in the following inventories:

TCSI	: Not in compliance with the inventory
TSCA	: Product contains substance(s) not listed on TSCA inventory.
AICS	: Not in compliance with the inventory
DSL	: This product contains the following components that are not on the Canadian DSL nor NDSL.

# SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version 1.0	Revision Date: 03/01/2023	SDS Number: 50001276	Date of last issue: - Date of first issue: 03/01/2023
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Polyalkylene oxide block copolymer

O,O-DIMETHYL S-METHYLCARBAMOYLMETHYL  
PHOSPHORODITHIOATE

ENCS	:	Not in compliance with the inventory
ISHL	:	Not in compliance with the inventory
KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory
NZIoC	:	Not in compliance with the inventory

### TSCA list

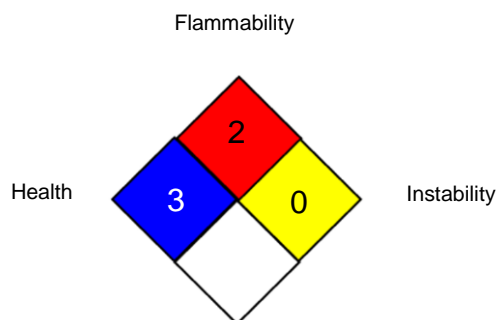
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

## SECTION 16. OTHER INFORMATION

### Further information

#### NFPA 704:



0 No health threat, 1 Slightly Hazardous, 2 Hazardous, 3 Extreme danger, 4 Deadly

#### HMIS® IV:

HEALTH	*	3
FLAMMABILITY		2
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

### Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits

# SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/01/2023	50001276	Date of first issue: 03/01/2023

OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECL - 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

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# SAFETY DATA SHEET



## Cygon 480-AG Systemic Insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/01/2023	50001276	Date of first issue: 03/01/2023

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**End of Material Safety Data Sheet**