SAFETY DATA SHEET

Propanil 4SC

Section 1. Identification

GHS product identifier Propanil 4SC

Chemical name Propanil ({N-3,4-dichlorophenyl}propanamide)

Other means of Acetanilide Herbicide

identification

EPA Product 87290-18

Registration Number

EPA Signal Word CAUTION Product type Liquid.

Identified uses

Herbicide.

Supplier's details Novact Corpporation

13395 SW 131st Street Miami FL 33186 Tel: 305-235-3950

Emergency telephone CHEMTREC (24/7): U.S.:800-424-9300

number (with hours of International: +1-703-527-3887

operation) 24/7 Health Emergencies: Call 800-858-7378 (National Pesticide Information Center)

Section 2. Hazards identification

OSHA/HCS status This material is considered hazardous by the OSHA Hazard Communication

Standard (29 CFR 1910.1200).

Classification of the substance or mixture

ACUTE TOXICITY (oral) - Category 4

SKIN SENSITIZATION - Category 1

AQUATIC HAZARD (ACUTE) - Category 1
AQUATIC HAZARD (LONG-TERM) - Category 1

GHS label elements

Hazard pictograms





Signal word Warning

Hazard statements Harmful if swallowed.

May cause an allergic skin reaction.

Very toxic to aquatic life with long lasting effects.

Precautionary statements

General Read label before use. Keep out of reach of children. If medical advice is needed,

have product container or label at hand.



Prevention Wear protective gloves. Avoid release to the environment. Avoid breathing vapor. Do

not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

Collect spillage. IF SWALLOWED: Call a POISON CENTER or physician if you feel Response

> unwell, Rinse mouth, IF ON SKIN: Wash with plenty of soap and water, Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical

attention.

Storage Not applicable.

Disposal Dispose of contents and container in accordance with all local, regional, national

and international regulations.

Hazards not otherwise

classified

None known.

Section 3. Composition/information on ingredients

Substance/mixture Mixture

Chemical name Propanil ({N-3,4-dichlorophenyl}propanamide)

Other means of Acetanilide Herbicide

identification

CAS number/other identifiers

CAS number Not applicable. **Product code** Not available.

Ingredient name	%	CAS number
Propanil (ISO) (N-[3,4-diclorophenyl] propanamide)	30 - 60	709-98-8
Poly(oxy-1,2-ethanediyl), a-sulfo-w-[2,4,6-tris(1-phenylethyl)phenoxy]-, ammonium salt (1:1) Poloxalene	5 - 10	119432-41-6
1.2-Benzisothiazol-3(2H)-one	1 - 5	9003-11-6
1,2 23.233.322. 3,2.1) 3.13	0 - 0.1	2634-33-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower

eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20

minutes. Get medical attention if irritation occurs.

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not

breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial

respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical

attention immediately. Maintain an open airway. Loosen tight clothing such as a collar,

tie, belt or waistband. In case of inhalation of decomposition products in a fire,

surveillance for 48 hours. d. The exposed person may need to be kept under medical

Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure.

Wash clothing before reuse. Clean shoes thoroughly before reuse.



Skin contact

Ingestion

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects. acute and delayed

Potential acute health effects

Eye contact No known significant effects or critical hazards.

Inhalation Exposure to decomposition products may cause a health hazard. Serious effects may

be delayed following exposure.

Skin contact May cause an allergic skin reaction.

Ingestion Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact

No known significant effects or critical hazards.

No known significant effects or critical hazards.

Skin contact

Adverse symptoms may include the following:

irritation redness

Ingestion No known significant effects or critical hazards.

Indication of immediate medical attention and special treatment needed. if necessary

Notes to physician In case of inhalation of decomposition products in a fire, symptoms may be delayed.

The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments No specific treatment.

Protection of first-aiders
No action shall be taken involving any personal risk or without suitable training. It may

be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash

contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

Unsuitable extinguishing

media

None known.

Specific hazards arising from the chemical

This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged

to any waterway, sewer or drain.



In case of fire, use water spray (fog), foam, dry chemical or CO2.

Hazardous thermal decomposition products

Decomposition products may include the following materials:

carbon dioxide carbon monoxide nitrogen oxides sulfur oxides

halogenated compounds metal oxide/oxides

Special protective actions for fire-fighters

No special measures are required.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions. protective equipment and emergency procedures

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning UP

Small spill

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.



Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
1,2-Propylene glycol Sodium Chloride	AIHA WEEL (United States, 10/2011). TWA: 10 mg/m³ 8 ACGIH TLV (United States). TWA: 10 mg/m³ Form: Inhalable fraction. TWA: 3 mg/m³ Form: Respirable dust OSHA PEL (United States).
	PEL: 5 mg/m³ Form: Respirable dust PEL: 15 mg/m³ Form: Total dust

Appropriate engineering controls

Environmental exposure controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with sideshields.

Skin protection Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.



Personal protective equipment for the body should be selected based on the task **Body protection**

being performed and the risks involved and should be approved by a specialist before

handling this product.

Appropriate footwear and any additional skin protection measures should be selected Other skin protection

based on the task being performed and the risks involved and should be approved by

a specialist before handling this product.

Use a properly fitted, air-purifying or supplied air respirator complying with an approved Respiratory protection

> standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the

safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state Liquid. Color Light tan. **Odor** Slight

Not available. **Odor threshold** pН 5 to 6.5 **Melting point** Not available. **Boiling point** Not available. Flash point Not flammable. **Evaporation rate** Not available. Not flammable. Flammability (solid, gas)

Lower and upper explosive

(flammable) limits

Not flammable.

Vapor pressure Not available. Vapor density Not available.

Relative density >1.2

Solubility Soluble in the following materials: cold water and hot

Partition coefficient: n-

octanol/water

water. Not available.

Auto-ignition temperature Not flammable. **Decomposition temperature** Not available. Not available. **Viscosity**

Section 10. Stability and reactivity

Reactivity No specific test data related to reactivity available for this product or its ingredients.

Chemical stability The product is stable.

Possibility of hazardous

reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid No specific data.



Incompatible materials Reactive or incompatible with the following materials: oxidizing materials, acids and

alkalis

Hazardous decomposition

products

Under normal conditions of storage and use, hazardous decomposition products

should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Propanil(ISO) (N-[3,4-diclorophenyl] propanamide)	LD50 Dermal	Rabbit	4830 mg/kg	-
	LD50 Dermal LD50 Oral	Rat	>5 g/kg 367 mg/kg	
1,2-Benzisothiazol-3(2H)-one	LD50 Oral	Rat	1020 mg/kg	

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
1,2-Benzisothiazol-3(2H)-one	Skin Mild Irritant	Human	-	48 hours, 5%	-

Sensitization

There is no data available.

Carcinogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Information on the likely routes of exposure

Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact No known significant effects or critical hazards.

Inhalation Exposure to decomposition products may cause a health hazard. Serious effects may

be delayed following exposure.

Skin contact May cause an allergic skin reaction.

Ingestion Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact

No known significant effects or critical hazards.

No known significant effects or critical hazards.

Skin contact

Adverse symptoms may include the following:

irritation redness

Ingestion No known significant effects or critical hazards.



Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate No known significant effects or critical hazards.

effects

Potential delayed effects No known significant effects or critical hazards.

Lona term exposure

Potential immediate No known significant effects or critical hazards.

effects

Potential delayed effects No known significant effects or critical hazards.

Potential chronic health effects

General Once sensitized, a severe allergic reaction may occur when subsequently exposed to

very low levels.

CarcinogenicityNo known significant effects or critical hazards.MutagenicityNo known significant effects or critical hazards.TeratogenicityNo known significant effects or critical hazards.Developmental effectsNo known significant effects or critical hazards.Fertility effectsNo known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	877.3 mg/kg
Dermal	11582.1 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Propanil (ISO) (N-[3,4-diclorophenyl] propanamide) 1,2-Benzisothiazol-3(2H)-one	Acute EC50 0.09 ug/ml Fresh water Acute EC50 0.29 mg/L Fresh water Acute EC50 1.2 ppm Fresh water Acute LC50 1520 pg/L Fresh water Acute LC50 0.43 ppm Fresh water Chronic EC10 0.12 mg/L Fresh water Chronic NOEC 0.016 mg/L Fresh water Chronic NOEC 0.4 ppb Acute EC50 97 ppb Fresh water Acute LC50 >10 mg/L Fresh water Acute LC50 167 ppb Fresh water	Algae - Chlorella pyrenoidosa - Exponential growth phase Algae - Scenedesmus acutus Daphnia - Daphnia magna Crustaceans - Ceriodaphnia dubia Fish - Ictalurus punctatus Algae - Scenedesmus acutus Daphnia - Daphnia magna - Neonate Fish - Pimephales promelas Daphnia - Daphnia magna Crustaceans - Ceriodaphnia dubia Fish - Oncorhynchus mykiss	4 days 72 hours 48 hours 48 hours 96 hours 72 hours 21 days 60 days 48 hours 48 hours 96 hours

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Propanil (ISO) (N-[3,4-diclorophenyl] propanamide)	3.07	69.16	Low



Mobility in soil

Soil/water partition coefficient (Koc)

Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN3062	UN3062	UN3062
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Propanil (ISO) (N-[3,4-diclorophenyl] propanamide))	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Propanil (ISO) (N-[3,4-diclorophenyl] propanamide))	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Propanil (ISO) (N-[3,4-diclorophenyl] propanamide))
Transport hazard class(es)	9	9	9
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	Yes.
Additional information	Non-bulk packages of this product are not regulated as hazardous materials unless transported by inland waterway. The marine pollutant mark is not required when transported on inland waterways in sizes of 55 L or 55 kg.	The marine pollutant mark is not required when transported in sizes of 55 L or 55 kg.	The environmentally hazardous substance mark is not required when transported in sizes of 55 L or 55 kg.

AERG: 171

Special precautions for user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

Not available.



U.S. Federal regulations TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112

(b) Hazardous Air Pollutants (HAPs)

Not listed

Clean Air Act Section 602 Class I Substances Not listed

Clean Air Act Section

Not listed

602 Class II Substances

DEA List I Chemicals (Precursor Chemicals)

Not listed

DEA List II Chemicals (Essential Chemicals)

Not listed

SARA 302/304

Composition/information on ingredients

	SARA 302 TPQ SARA 304 RQ		SARA 302 TPQ		Q	
Name	%	EHS	(lbs)	(gallons)	(lbs)	(gallons)
Ethylene oxide	0-0.1	Yes.	1000	-	10	

SARA 304 RQ

1851851.9 lbs / 840740.7 kg [168257.7 gal / 636924.8 L]

SARA 311/312

Classification

Immediate (acute) health hazard

Composition/information on ingredients

Name	%	_	Sudden release of pressure		, ,	Delayed (chronic) health hazard
Propanil (ISO) (N-[3,4-diclorophenyl]	30 - 60	No.	No.	No.	Yes.	No.
Poly(oxy-1,2-ethanediyl), a-sulfo-w-[2,4,6-tris(1-phenylethyl)phenoxy]-, ammonium salt (1:1)	5-10	No.	No.	No.	Yes.	No.
1,2-Benzisothiazol-3(2H)-one	0-0.1	No.	Na.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Propanil (ISO) (N-[3,4-diclorophenyl] propanamide)	709-98-8	30 - 60
Supplier notification	Propanil (ISO) (N-[3,4-diclorophenyl] propanamide)	709-98-8	30 - 60

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

MassachusettsNone of the components are listed.New YorkNone of the components are listed.



New Jersey The following components are listed: Propanil (ISO) (N-[3,4-diclorophenyl]

propanamide); 1,2-Propylene glycol

Pennsylvania The following components are listed: 1,2-Propylene glycol

California Prop. 65

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer. **WARNING:** This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Ethylene oxide	Yes.	Yes	Yes.	Yes

International reaulations

International lists Australia inventory (AICS): All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Japan inventory: Not determined.

Korea inventory: All components are listed or exempted. **Malaysia Inventory (EHS Register):** Not determined.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Philippines inventory (PICCS): Not determined. Taiwan inventory (CSNN): Not determined.

Chemical Weapons

Convention List Schedule

I Chemicals

Chemical Weapons

Convention List Schedule

II Chemicals

Chemical Weapons

Convention List Schedule

III Chemicals

Not listed

Not listed

Not listed

Section 16. Other information

History

Date of issue mm/dd/yyyy 11/15/2015 Date of previous issue 07/30/2015

Version 1.1

Revised Section(s) 1, 8, 16.

Prepared by KMK Regulatory Services Inc

Key to abbreviations ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of

Chemicals IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations



Section 16. Other information

Propanil 4SC

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

