

TERMIX® 5400

Version 1.0 Revision Date: 10/05/2015 SDS Number: 400001003816 Date of last issue: -
Date of first issue: 10/05/2015

SECTION 1. IDENTIFICATION

Product name : TERMIX® 5400

Manufacturer or supplier's details

Company name of supplier : Huntsman International LLC
Address : P.O. Box 4980
The Woodlands,
TX 77387
United States of America
Telephone : TechInfo: (281) 719-7780

E-mail address of person responsible for the SDS : MSDS@huntsman.com

Emergency telephone : Chemtrec: (800) 424-9300 or (703) 527-3887

Recommended use of the chemical and restrictions on use

Recommended use : Agrochemical

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Serious eye damage : Category 1

Specific target organ systemic toxicity - single exposure : Category 2 (Central nervous system, Kidney)

Specific target organ systemic toxicity - repeated exposure : Category 2 (Central nervous system, Kidney, Liver)

GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H318 Causes serious eye damage.
H371 May cause damage to organs (Central nervous system, Kidney).
H373 May cause damage to organs (Central nervous system, Kidney, Liver) through prolonged or repeated exposure.

Precautionary Statements : **Prevention:**
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

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P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear eye protection/ face protection.

Response:

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 or doctor/ physician.

P308 + P311 IF exposed or concerned: Call a POISON CENTER or doctor/ physician.

Storage:

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

Substance / Mixture : Mixture

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (%)
Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-hydroxy-, mono-C6-12-alkyl ethers, phosphates	68921-24-4	30 - 60
Diethylene glycol	111-46-6	7 - 13

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
 Consult a physician.
 Show this material safety data sheet to the doctor in attendance.
 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 : Wash off immediately with plenty of water.
 Burns must be treated by a physician.
 Remove contaminated clothing and shoes.
 Wash clothing before reuse.
 Thoroughly clean shoes before reuse.
- 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.

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- Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : None known.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- 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 : No hazardous combustion products are known
- Specific extinguishing methods : No data is available on the product itself.
- 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.
- 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.
Evacuate personnel to safe areas.
Ensure adequate ventilation.
In case of inadequate ventilation wear respiratory protection.
- 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 respective authorities.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

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Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : 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.
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 : Keep container tightly closed in a dry and well-ventilated place.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : Keep away from oxidizing agents.
Keep away from strong acids.
Keep away from strong bases.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

Hazardous components without workplace control parameters

Ingredients	CAS-No.
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C6-12-alkyl ethers, phosphates	68921-24-4
Diethylene glycol	111-46-6

Personal protective equipment

- Respiratory protection : In the case of vapor formation use a respirator with an approved filter.
Use a properly fitted, air-purifying or air-fed respirator complying with an approved 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.
- Hand protection
Remarks : Impervious gloves
The suitability for a specific workplace should be discussed with the producers of the protective gloves.

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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.

- Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles.
Wear face-shield and protective suit for abnormal processing problems.
Ensure that eyewash stations and safety showers are close to the workstation location.
- 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

- Appearance : liquid
- Color : amber, clear
- Odor : neutral
- Odor Threshold : No data is available on the product itself.
- pH : 5.5
- Boiling point : > 100 °C
- Flash point : > 121 °C
Method: closed cup
- Evaporation rate : No data is available on the product itself.
- Flammability (solid, gas) : No data is available on the product itself.
- Upper explosion limit : No data is available on the product itself.
- Lower explosion limit : No data is available on the product itself.
- Vapor pressure : No data is available on the product itself.
- Relative vapor density : No data is available on the product itself.
- Relative density : 1.16
- Density : No data is available on the product itself.

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Solubility(ies)
Water solubility : No data is available on the product itself.

Solubility in other solvents : No data is available on the product itself.

Partition coefficient: n-octanol/water : No data is available on the product itself.

Autoignition temperature : No data is available on the product itself.

Thermal decomposition : No data is available on the product itself.

Viscosity
Viscosity, kinematic : 40 mm²/s (40 °C)

Self-Accelerating decomposition temperature (SADT) : No data is available on the product itself.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No decomposition if stored and applied as directed.

Conditions to avoid : No data available

Hazardous decomposition products : Carbon dioxide (CO₂)
Carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : No data is available on the product itself.

Acute toxicity

Acute oral toxicity - Product : Acute toxicity estimate : 5,000 mg/kg
Method: Calculation method

Acute inhalation toxicity : No data available

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

Acute toxicity (other routes of administration) : No data available

Skin corrosion/irritation**Product:**

Remarks: Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation**Product:**

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Remarks: May cause irreversible eye damage.

Respiratory or skin sensitization**Ingredients:**

Diethylene glycol:
Routes of exposure: Skin
Species: Guinea pig
Method: Directive 67/548/EEC, Annex V, B.6.
Result: Does not cause skin sensitization.

Assessment: No data available

Germ cell mutagenicity

Genotoxicity in vitro : No data available

Ingredients:

Diethylene glycol:
Genotoxicity in vivo : Cell type: Somatic
Application Route: Intraperitoneal injection
Dose: 500 - 2000 mg/kg
Method: OECD Test Guideline 474
Result: negative

Carcinogenicity**Ingredients:**

Diethylene glycol:
Species: Rat, (male and female)
Application Route: Oral
Exposure time: 108 weeks
Dose: 1160 - 1210 mg/kg
Frequency of Treatment: 7 daily
Result: negative

Carcinogenicity - Assessment : No data available

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 ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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

Effects on fertility : No data available

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Ingredients:

Diethylene glycol:

Effects on fetal development : Species: Rabbit
Application Route: Oral
Dose: 1000 milligram per kilogram
Method: OECD Test Guideline 414
Result: No teratogenic effects.

Reproductive toxicity - Assessment : No data available

STOT-single exposure**Ingredients:**

Diethylene glycol:

Target Organs: Central nervous system, Kidney

Assessment: May cause damage to organs.

STOT-repeated exposure**Ingredients:**

Diethylene glycol:

Target Organs: Kidney, Liver, Central nervous system

Assessment: May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity**Ingredients:**

Diethylene glycol:

Species: Rat, male and female

No-observed-effect level: 150 mg/kg

Application Route: Ingestion

Exposure time: 28 Days

Method: Subacute toxicity

Repeated dose toxicity - Assessment : No data available

Aspiration toxicity

No data available

Experience with human exposure

General Information: No data available

Inhalation: No data available

Skin contact: No data available

Eye contact: No data available

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Ingestion: No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information**Product:**

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Ingredients:**

Diethylene glycol:
Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 75,200 mg/l
Exposure time: 96 h
Test Type: flow-through test
Test substance: Fresh water
Remarks: Toxic to aquatic organisms.

Ingredients:

Diethylene glycol:
Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
aquatic invertebrates Exposure time: 24 h
Test Type: static test
Test substance: Fresh water
Method: DIN 38412

Toxicity to algae : No data available

M-Factor (Acute aquatic : No data available
toxicity)

Ingredients:

Diethylene glycol:
Toxicity to fish (Chronic : NOEC (Pimephales promelas (fathead minnow)): 15,380 mg/l
toxicity) Exposure time: 17 d
Test substance: Fresh water

Ingredients:

Diethylene glycol:
Toxicity to daphnia and other : NOEC (Ceriodaphnia (water flea)): 8,590 mg/l
aquatic invertebrates Exposure time: 7 d

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(Chronic toxicity) Test Type: static test
 Test substance: Fresh water

M-Factor (Chronic aquatic toxicity) : No data available

Ingredients:

Diethylene glycol:
 Toxicity to bacteria : IC50: > 1,000 mg/l
 Exposure time: 3 h
 Method: OECD Test Guideline 209

Toxicity to soil dwelling organisms : No data available

Plant toxicity : No data available

Sediment toxicity : No data available

Toxicity to terrestrial organisms : No data available

Ecotoxicology Assessment
 Acute aquatic toxicity : No data available

Chronic aquatic toxicity : No data available

Toxicity Data on Soil : No data available

Other organisms relevant to the environment : No data available

Further information:
 No data available

Persistence and degradability

Ingredients:

Diethylene glycol:
 Biodegradability : Inoculum: activated sludge
 Result: Readily biodegradable.
 Biodegradation: >= 70 %
 Exposure time: 10 - 29 d

Biochemical Oxygen Demand (BOD) : No data available

Chemical Oxygen Demand (COD) : No data available

BOD/COD : No data available

ThOD : No data available

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BOD/ThOD : No data available

Dissolved organic carbon (DOC) : No data available

Physico-chemical removability : No data available

Stability in water : No data available

Photodegradation : No data available

Impact on Sewage Treatment : No data available

Bioaccumulative potential**Ingredients:**

Diethylene glycol:
Bioaccumulation : Species: Leuciscus idus (Golden orfe)
Bioconcentration factor (BCF): 100
Exposure time: 3 d
Test substance: Fresh water
Method: OECD Test Guideline 305

Ingredients:

Diethylene glycol:
Partition coefficient: n-octanol/water : log Pow: -1.98

log Pow: -1.98 (25 °C)
Method: No information available.

Mobility in soil

Mobility : No data available

Distribution among environmental compartments : No data available

Stability in soil : No data available

Other adverse effects

Environmental fate and pathways : No data available

Results of PBT and vPvB assessment : No data available

Endocrine disrupting potential : No data available

Adsorbed organic bound halogens (AOX) : No data available

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Hazardous to the ozone layer

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 - Product : No data available
Global warming potential
(GWP) : No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Do not dispose of waste into sewer.
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.

SECTION 14. TRANSPORT INFORMATION**International Regulation****IATA**

Not regulated as a dangerous good

IMDG

Not regulated as a dangerous good

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

Not applicable for product as supplied.

Domestic regulation**DOT Classification**

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity**

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Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
FORMALDEHYDE (FA)	50-00-0	100	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 311/312 Hazards : Acute Health Hazard
 Chronic Health Hazard

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

Diethylene glycol 111-46-6 10 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

California Prop 65 WARNING! This product contains a chemical known in the State of California to cause cancer.

formaldehyde 50-00-0

ethylene oxide 75-21-8

WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

ethylene oxide 75-21-8

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

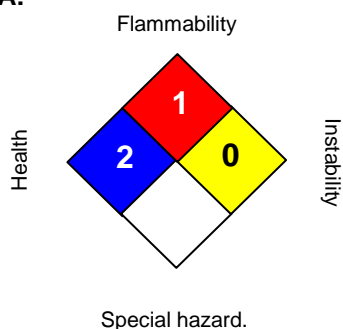
TSCA : On TSCA Inventory
 DSL : All components of this product are on the Canadian DSL.
 AICS : On the inventory, or in compliance with the inventory
 NZIoC : On the inventory, or in compliance with the inventory
 IECSC : On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

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SECTION 16. OTHER INFORMATION**Further information****NFPA:****HMIS III:**

HEALTH	2*
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,

2 = Moderate, 3 = High

4 = Extreme, * = Chronic

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Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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