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Product name	<b>DANAFLOAT™ 067</b>	October 2019
Safety data sheet according to EU Reg. 1907/2006 as amended		Supersedes April 2016

## SAFETY DATA SHEET

### DANAFLOAT™ 067

Revision: Sections containing a revision or new information are marked with a ♣.

#### ♣ SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1. **Product identifier** ..... **DANAFLOAT™ 067**  
**Contains cresols and ammonium-O,O-bis(methylphenyl)phosphorodithioate**
- 1.2. **Relevant identified uses of the substance or mixture and uses advised against** ..... Can be used as flotation reagent (flotation collector) only.
- 1.3. **Details of the supplier of the safety data sheet** **FMC Agricultural Solutions A/S**  
 Thyborønvej 78  
 DK-7673 Harbøre  
 Denmark  
[SDS.Ronland@fmc.com](mailto:SDS.Ronland@fmc.com)
- 1.4. **Emergency telephone number**  
**Company** ..... +45 97 83 53 53 (24 h; for emergencies only)
- Medical emergencies:
- |                                     |   |
|-------------------------------------|---|
| Austria: +43 1 406 43 43            | Luxembourg: +352 8002 5500                                      |
| Belgium: +32 70 245 245             | Netherlands: +31 30 274 88 88                                   |
| Bulgaria: +359 2 9154 409           | Norway: +47 22 591300   |
| Cyprus: 1401                        | Poland: +48 22 619 66 54  |
| Czech Republic: +420 224 919 293    | +48 22 619 08 97  |
| +420 224 915 402                    | Portugal: 800 250 250 (in Portugal only)                        |
| Denmark: +45 82 12 12 12            | +351 21 330 3284  |
| England and Wales: 111              | Romania: +40 21318 3606   |
| Estonia: +372 7943500               | Scotland: +8454 24 24 24  |
| France: +33 (0) 1 45 42 59 59       | Slovakia: +421 2 54 77 4 166                                    |
| Finland: +358 9 471 977             | Slovenia: +386 41 650 500                                       |
| Greece: 30 210 77 93 777            | South Africa: +27 83 123 3911 (Bateleur Emergency Response Co.) |
| Hungary: +36 80 20 11 99            | Spain: +34 91 562 04 20   |
| Ireland (Republic): +353 1 837 9964 | Sweden: +46 08-331231   |
| Italy: +39 02 6610 1029             | 112   |
| Latvia: +371 670 42 473             | Switzerland: 145  |
| 112                                 | Turkey: 114   |
| Lithuania: +370 523 62052           | U.S.A. & Canada: +1 800 / 331 3148                              |
| +370 687 53378                      | All other countries: +1 651 / 632 6793 (Collect)                |

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## ♣ SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

Acute oral toxicity: Category 4 (H302)  
 Acute inhalation toxicity: Category 3 (H331)  
 Skin corrosion: Category 1B (H314)  
 Eye damage: Category 1 (H318)  
 Hazards to the aquatic environment, chronic: Category 1 (H410)

Health hazards .....

The hazardous properties of the product are expected to be dominated by those of cresols.

Cresols are poisonous and can cause severe irritation to skin, eyes, airways and digestive tract. They can cause permanent damage, in-depth burns and blindness. They enter the body on contact with all skin surfaces, eyes, and by inhalation. They attack the central nervous system, respiratory tract, liver and kidneys. After severe contamination death can rapidly occur.

Long-term effects include permanent damage to tissues, most often skin, lungs, central nervous system, liver and kidneys. Hypersensitivity develops in certain individuals.

Cresols may have a local anaesthetic effect. It should be noted that permanent damage to health may already occur before the smell threshold is crossed, because they can dull the sense of smell. Moreover, the amount of pain experienced on exposure is no measure for the actual damage. Long-term effects may be more severe.

Environmental hazards .....

The product is hazardous in the aquatic environment.

### 2.2. Label elements

According to EU Reg. 1272/2008 as amended

Product identifier .....

Danafloat™ 067  
 Contains cresols and ammonium-O,O-bis(methylphenyl)phosphorodithioate

Hazard pictograms (GHS06, GHS05, GHS09)



Signal word .....

Danger

Hazard statements

H302 .....  
 H311 .....  
 H314 .....  
 H318 .....  
 H410 .....

Harmful if swallowed.  
 Toxic in contact with skin.  
 Causes severe skin burns and eye damage.  
 Causes serious eye damage.  
 Very toxic to aquatic life with long lasting effects.

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Precautionary statements	
P264 .....	Wash thoroughly after handling.
P280 .....	Wear protective gloves, protective clothing and eye/face protection.
P303+P361+P353 .....	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or take a shower.
P305+P351+P338 .....	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 .....	Immediately call a POISON CENTER or physician.
P501 .....	Dispose of contents and container as hazardous waste.
2.3. <b>Other hazards</b> .....	None of the ingredients in the product meets the criteria for being PBT or vPvB.

### ♣ SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. <b>Substances</b> .....	The product is a mixture, not a substance
3.2. <b>Mixtures</b> .....	See section 16 for full text of hazard statements.

#### Active ingredient

<b>Cresyl-dtp-NH<sub>4</sub></b> .....	Content: 49 - 51% by weight
CAS name .....	Phosphorodithioic acid, O,O-bis(methylphenyl) ester, ammonium salt
CAS no. ....	58373-83-4
IUPAC name .....	Ammonium-O,O-bis(methylphenyl)phosphorodithioate
EU name .....	Ammonium O,O-bis(methylphenyl) dithiophosphate
Other name(s) .....	Cresyl-dtp-NH <sub>4</sub>
EC no. (EINECS no.) .....	261-229-1
EU index no. ....	None
Molecular weight .....	334.18
Classification of the ingredient .....	Acute oral toxicity: Category 4 (H302) Acute dermal toxicity: Category 3 (H311) Skin corrosion: Category 1B (H314) Hazards to the aquatic environment, chronic: Category 1 (H410)

#### Reportable ingredients

	Content (% w/w)	CAS no.	EC no. (EINECS no.)	Classification
Mix-cresol	Max. 7	1319-77-3	215-293-2	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Skin Corr. 1B (H314)
Ammonia	Max. 1	1336-21-6	215-647-6	Skin Corr. 1B (H314) Aquatic Acute 1 (H400) STOT SE 3 (H335)

### ♣ SECTION 4: FIRST AID MEASURES

4.1. <b>Description of first aid measures</b>	In case of exposure, do not wait for symptoms to develop. Immediately start the recommended procedures below. The speed of
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decontamination is essential in preventing dermal burns as well as systemic toxicity from cresol.

If breathing has stopped, start artificial respiration immediately and maintain until a physician takes care of the victim.

Inhalation .....	If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.
Skin contact .....	Immediately flush with much polyethylene glycol/ethanol mixture or if this is not available with water while removing contaminated clothing and footwear. Do not wipe off. Wash with water and soap. See physician immediately if experiencing pain or if irritation develops.
Eye contact .....	Immediately rinse eyes with much water or eyewash solution, occasionally opening eyelids. Remove contact lenses after a few minutes and rinse again. See physician immediately. Continue rinsing underway to physician, also after initial pain has subsided.
Ingestion .....	Let the exposed person rinse mouth and let him/her drink several glasses of water or milk, but not induce vomiting. Let the exposed person take a few spoonfuls of food oil (olive oil or other plant oil, no paraffin oil). If vomiting does occur, give fluids again. Never give anything by mouth to an unconscious person. Make the exposed person sit in half-upright position and keep him/her steady. Get medical attention immediately.

**4.2. Most important symptoms and effects, both acute and delayed**

Burning pain in nose, mouth, eyes and skin, nausea, headache, vomiting, convulsions, tightness in chest, laboured breathing, unconsciousness, cardiac arrest.

**4.3. Indication of any immediate medical attention and special treatment needed**

Call a physician, poison centre or hospital immediately. Describe the type and extent of exposure and the victim's condition.

A mixture of polyethylene glycol and ethanol (2:1) has proven most suitable for removal of cresols from skin. It should be kept available for rapid use at the workplace.

It may be helpful to show this safety data sheet to physician.

Note to physician .....	In case lungs are affected watch for pulmonary oedema
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**♣ SECTION 5: FIRE-FIGHTING MEASURES**

<b>5.1. Extinguishing media .....</b>	Dry chemical or carbon dioxide for small fires, water spray or foam for large fires. Avoid heavy hose streams.
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**5.2. Special hazards arising from the substance or mixture**

The essential breakdown products are volatile, toxic, malodorous, irritant and inflammable compounds such as alkyl mercaptans, hydrogen sulphide, dialkyl sulphide, sulphur dioxide, phosphorous pentoxide, carbon monoxide and carbon dioxide.

**5.3. Advice for firefighters .....**

Use water spray to keep fire-exposed containers cool. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Fight fire from protected location or maximum possible distance. Dike area to prevent water runoff. Firemen should wear self-contained breathing apparatus and protective clothing.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1. Personal precautions, protective equipment and emergency procedures**

It is recommended to have a predetermined plan for the handling of spills. Empty, closable vessels for the collection of spills should be available.

In case of large spill (involving 1 tonne of the product or more):

1. use personal protection equipment; see section 8
2. call emergency telephone no.; see section 1
3. alert authorities.

Observe all safety precautions when cleaning up spills. Use personal protection equipment. Depending on the magnitude of the spill this may mean wearing respirator, face mask or eye protection, chemical resistant clothing, gloves and rubber boots.

Stop the source of the spill immediately if safe to do so. Keep unprotected persons away from the spill area. Avoid and reduce mist formation as much as possible. Personal exposure by splashing must be avoided.

**6.2. Environmental precautions .....**

Contain the spill to prevent any further contamination of surface, soil or water. Wash waters must be prevented from entering surface water drains. Uncontrolled discharge into water courses must be alerted to the appropriate regulatory body.

**6.3. Methods and materials for containment and cleaning up**

It is recommended to consider possibilities to prevent damaging effects of spills, such as bunding or capping. See GHS (Annex 4, Section 6).

Surface water drains should be covered if appropriate. Minor spills on the floor or other impervious surface should be absorbed onto an absorptive material such as universal binder, bentonite, Fuller's earth or other absorbent clays. Collect the contaminated absorbent in suitable containers. Clean area with much water and industrial detergent. Absorb wash liquid onto absorbent and transfer to suitable containers. The used containers should be properly closed and labelled.

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Large spills which soak into the ground should be dug up and transferred to suitable containers.

Spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal.

- 6.4. **Reference to other sections** ..... See subsection 8.2. for personal protection.  
 See section 13 for disposal.

## SECTION 7: HANDLING AND STORAGE

- 7.1. **Precautions for safe handling** .... In an industrial environment, it is recommended to avoid all personal contact with the product, if possible by using closed systems with remote system control. The material should be handled by mechanical means as much as possible. Adequate ventilation or local exhaust ventilation is required. The exhaust gases should be filtered or treated otherwise.
- Remove contaminated clothing immediately. Wash thoroughly after handling. Before removing gloves, wash them with water and soap. After work, take off all work clothes and footwear. Take a shower, using water and soap. Wear only clean clothes when leaving job. Wash protective clothing and protective equipment with water and soap after each use.
- Do not discharge to the environment. Collect all waste material and remains from cleaning equipment, etc., and dispose of as hazardous waste. See section 13 for disposal.
- 7.2. **Conditions for safe storage, including any incompatibilities** The product is stable under normal conditions of warehouse storage. To avoid freezing, store wherever possible above 0°C.
- Store in labelled, tightly closed plastic drums or coated steel drums. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. A warning sign reading "POISON" is recommended. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available.
- 7.3. **Specific end use(s)** ..... Can be used as flotation reagent (flotation collector) only.

## ♣ SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1. **Control parameters**  
 Personal exposure limits ..... To our knowledge, no personal exposure limits have been established for the active ingredient cresyl-dtp-NH<sub>4</sub>.

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Cresol	ACGIH (USA) TLV	Year	
		2015	TWA 20 mg/m <sup>3</sup> inhalable fraction and vapour
			Skin notation
	OSHA (USA) PEL	2015	8-hr TWA 5 ppm (22 mg/m <sup>3</sup> ); skin notation
	EU, 2000/39/EC	2017	Not established
	as amended		
	Germany, MAK	2014	Biological limit value 200 mg/l in urine; skin notation
	HSE (UK) WEL	2011	Not established

However, other personal exposure limits defined by local regulations may exist and must be observed.

#### Mix-cresol

DNEL, inhalation, systemic effects	3.5 mg/m <sup>3</sup>
DNEL, irritation of airways .....	0.9 mg/m <sup>3</sup>
PNEC, freshwater .....	100 µg/l
PNEC, marine water .....	3 µg/l

#### 8.2. Exposure controls .....

When used in a closed system, personal protection equipment will not be required. The following is meant for other situations, when the use of a closed system is not possible, or when it is necessary to open the system. Consider the need to render equipment or piping systems non-hazardous before opening.

In cases of incidental high exposure, maximal personal protection equipment may be necessary, such as respirator, face mask, chemical resistant coveralls.



#### Respiratory protection

In the event of an accidental discharge of the material which produces a heavy vapour or mist, workers must put on officially approved respiratory protection equipment with a universal filter type including particle filter.



#### Protective gloves .....

Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber. The breakthrough time of these materials for this product are unknown. Generally, however, the use of protective gloves will give only partial protection against dermal exposure. Small tears in the gloves and cross-contamination can easily occur. It is recommended to limit the work to be done manually and to change the gloves regularly. Used gloves should be thrown out and not be reused.



#### Eye protection .....

Preferably wear a face shield, rather than goggles or safety glasses. It is recommended to have an eye wash fountain immediately available in the workplace.



#### Other skin protection

Wear appropriate chemical resistant clothing to prevent skin contact depending on the extent of exposure. During most normal work situations where exposure to the material cannot be avoided for a limited time span, waterproof pants and apron of chemical resistant material or coveralls of polyethylene (PE) will be sufficient. Coveralls

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of PE must be discarded after use if contaminated. In cases of excessive or prolonged exposure, coveralls of barrier laminate may be required.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on physical and chemical properties

Appearance .....	Red-brown liquid (solution in water)
Odour .....	Tar-like
Odour threshold .....	Not determined
pH .....	9.0 to 10.5
Melting point/freezing point .....	-1 to -5°C
Initial boiling point and boiling range	99°C
Flash point .....	None. The flame is extinguished at 65°C in the Pensky-Martens closed tester.
Evaporation rate .....	Not determined
Flammability (solid/gas) .....	Not applicable (liquid)
Upper/lower flammability or explosive limits .....	Not determined
Vapour pressure .....	Not determined
Vapour density .....	Not determined
Relative density .....	Not determined
	Density: 1.11 - 1.15 g/ml at 20°C
Solubility .....	Not determined
Partition coefficient n-octanol/water	Not determined
Autoignition temperature .....	No autoignition
Decomposition temperature .....	Not determined
Viscosity .....	Not determined
Explosive properties .....	Not explosive
Oxidising properties .....	Not oxidising

### 9.2. Other information

Miscibility .....	The product is miscible with water.
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## SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity .....	To our knowledge, the product has no special reactivities.
10.2. Chemical stability .....	The product is stable during normal handling and storage at ambient temperatures.
10.3. Possibility of hazardous reactions	None known.
10.4. Conditions to avoid .....	Heating of the product will evolve harmful and irritant vapours.
10.5. Incompatible materials .....	Acids
10.6. Hazardous decomposition products	See subsection 5.2.



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## ♣ SECTION 11: TOXICOLOGICAL INFORMATION

11.1. **Information on toxicological effects** \* = Based on available data, the classification criteria are not met.

### Product

Acute toxicity .....	The product is expected to be harmful by ingestion. The acute toxicity is estimated as:
Route(s) of entry	
- ingestion	LD <sub>50</sub> , oral, rat: 500 - 2000 mg/kg
- skin	LD <sub>50</sub> , dermal, rat: > 2000 mg/kg *
- inhalation	LC <sub>50</sub> , inhalation, rat: not available
Skin corrosion/irritation .....	Expected to be seriously irritating to skin.
Serious eye damage/irritation .....	Expected to be severely irritating to eyes with the potential to cause permanent eye damage.
Respiratory or skin sensitisation ...	To our knowledge, no indications of allergenic properties have been recorded. Not expected to have sensitising properties. *
Germ cell mutagenicity .....	Positive results have been observed for cresols in Chinese hamster ovary cells, but not in ovaries of <i>Drosophila melanogaster</i> . Results from other mutagenicity tests were mixed as well.
Carcinogenicity .....	The product contains no ingredient known to be carcinogenic. *
Reproductive toxicity .....	The product contains no ingredient found to have adverse effects on reproduction. *
STOT – single exposure .....	Cresols may have narcotic effects. They may cause irritation of airways. *
STOT – repeated exposure .....	The effects of chronic exposure are unknown, but must be expected to be severe. The following was measured for cresols: LOEL for inhalation of cresol: 0.05 µg/l in a 90-day test with rats. Effects were observed on central nervous system and lungs. For ingestion, a LOEL of 30000 ppm in food was found in a 91-day dietary test with rats. At this level there were various effects on liver, kidneys, testes, nose, thyroid, bone marrow, oesophagus, forestomach and uterus.
Aspiration hazard .....	The product contains no ingredients known to present an aspiration pneumonia hazard. *
Symptoms and effects, acute and delayed .....	Severe irritation.

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*Ammonium-O,O-bis(methylphenyl)phosphorodithioate*

Acute toxicity .....	The substance is expected to be harmful by ingestion.
Route(s) of entry	
- ingestion	LD <sub>50</sub> , oral, rat: 500 - 2000 mg/kg (estimated)
- skin	LD <sub>50</sub> , dermal, rat: not available
- inhalation	LC <sub>50</sub> , inhalation, rat: not available
Skin corrosion/irritation .....	Expected to be seriously irritating to skin.
Serious eye damage/irritation .....	Expected to be severely irritating to eyes with the potential to cause permanent eye damage.
Respiratory or skin sensitisation ...	To our knowledge, no indications of allergenic properties have been reported. *

*Mix-cresol*

Toxicokinetics, metabolism and distribution	Cresols are readily absorbed by all routes of exposure. They are extensively metabolised and metabolites are mainly found in the kidneys. It is excreted almost completely within 24 hours in the urine.
Acute toxicity .....	The toxicity of cresol isomer mixtures varies with composition, since the isomers have different toxicities. Toxicity of isomer mixtures can vary between toxic and harmful. Some of the lowest measured data are mentioned here, but other data exist.
Route(s) of entry	
- ingestion	LD <sub>50</sub> , cresol, oral, rat: 121 - 242 mg/kg
- skin	LD <sub>50</sub> , cresol, dermal, rabbit: 301 - 2050 mg/kg
- inhalation	LC <sub>50</sub> , o-cresol, inhalation, rat: 0.029 mg/l
Skin corrosion/irritation .....	Severely irritating to skin.
Serious eye damage/irritation .....	Severely irritating to eyes with the possibility to cause permanent eye damage.
Respiratory or skin sensitisation ...	Hypersensitivity develops in certain individuals. *

*Ammonia*

Acute toxicity .....	The substance is harmful by ingestion and inhalation. The acute toxicity is measured as:
Route(s) of entry	
- ingestion	LD <sub>50</sub> , oral, rat: 350 mg/kg (method OECD 401)
- skin	LD <sub>50</sub> , dermal, rat: not available
- inhalation	LC <sub>50</sub> , inhalation, mouse: 4230 ppm (measured on vapour phase)
Skin corrosion/irritation .....	An aqueous solution was found to be corrosive at 12%, but not at 10% (method OECD 404).

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Serious eye damage/irritation ..... Expected to be severely irritating to eyes with the possibility to cause permanent eye damage.

## SECTION 12: ECOLOGICAL INFORMATION

12.1. **Toxicity** ..... The toxicity of the product to aquatic organisms and other wildlife is unknown. It may be toxic or harmful to aquatic organisms.

Ecotoxicity of *o*-cresol:

- Fish	Rainbow trout ( <i>Oncorhynchus mykiss</i> ) .....	96-h LC <sub>50</sub> : 8.4 mg/l
	Brown trout ( <i>Salmo trutta</i> ) .....	96-h LC <sub>50</sub> : 6.2 mg/l
- Invertebrates	Daphnids ( <i>Daphnia magna</i> ) .....	48-h EC <sub>50</sub> : 5 - 23.5 mg/l
- Algae	Green algae ( <i>Selenastrum capricornutum</i> ) .....	72-h IC <sub>50</sub> : 65 mg/l

12.2. **Persistence and degradability** .... The product is biodegradable at low concentrations, but does not meet the criteria for being readily biodegradable. It undergoes degradation in the environment and in waste water treatment plants.

In the environment, cresols are degraded (but only at low concentrations), especially by bacteria that are widely distributed in soil and water, particularly *Pseudomonas* species. Degradation by other organisms, including yeasts, fungi, algae, and higher plants, as well as by photolysis, is also known. Accordingly, cresols do not persist in the environment at low concentrations.

Cresols impair the taste of edible fish and drinking water even at very low concentrations.

12.3. **Bioaccumulative potential** ..... Octanol-water partition coefficients are not available.

Bioaccumulation is not expected.

12.4. **Mobility in soil** ..... In the environment the product is expected to be moderately mobile.

12.5. **Results of PBT and vPvB assessment** ..... None of the ingredients meets the criteria for being PBT or vPvB.

12.6. **Other adverse effects** ..... Other relevant hazardous effects in the environment are not known.

## SECTION 13: DISPOSAL CONSIDERATIONS

13.1. **Waste treatment methods** ..... Remaining quantities of the material and empty but unclean packaging should be regarded as hazardous waste.

Disposal of waste and packagings must always be in accordance with all applicable local regulations.

Disposal of product ..... According to the Waste Framework Directive (2008/98/EC),

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possibilities for reuse or reprocessing should first be considered. If this is not possible, the material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing.

Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Disposal of packaging .....

It is recommended to consider possible ways of disposal in the following order:

1. Reuse or recycling should first be considered. If offered for recycling, containers must be emptied and triply rinsed (or equivalent). Do not discharge rinsing water to sewer systems.
2. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.
3. Delivery of the packaging to a licensed service for disposal of hazardous waste.
4. Disposal in a landfill or burning in open air should only occur as a last resort. For disposal in a landfill, containers should be emptied completely, rinsed and punctured to make them unusable for other purposes. If burned, stay out of smoke.

#### ♣ SECTION 14: TRANSPORT INFORMATION

##### ADR/RID/IMDG/IATA/ICAO classification

- |  |   |
|--|---|
| 14.1. UN number .....  | 2927  |
| 14.2. UN proper shipping name .....  | Toxic liquid, corrosive, organic, n.o.s. (cresols and ammonium-O,O-bis(methylphenyl)phosphorodithioate)                     |
| 14.3. Transport hazard class(es) .....   | 6.1 (8)   |
| 14.4. Packing group .....  | II  |
| 14.5. Environmental hazards .....  | The product may be toxic or harmful to aquatic organisms.   |
| 14.6. Special precautions for user .....                                       | Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not discharge to the environment. |
| 14.7. Transport in bulk according to Annex II of MARPOL and the IBC code ..... | The product is not transported in bulk by ship.   |

#### ♣ SECTION 15: REGULATORY INFORMATION

- |  |   |
|--|---|
| 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture | Seveso category (Dir. 2012/18/EU): toxic<br>Second Seveso category: dangerous for the environment |
|--|---|

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Young people under the age of 18 are not allowed to work with the product.

All ingredients are covered by EU chemical legislation.

15.2. **Chemical safety assessment** ..... A chemical safety assessment has not been performed.

#### ♣ SECTION 16: OTHER INFORMATION

Relevant changes in the safety data sheet .....

Minor corrections only.

List of abbreviations .....

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service
Dir.	Directive
DNEL	Derived No Effect Level
EC	European Community
EC <sub>50</sub>	50% Effect Concentration
EINECS	European INventory of Existing Commercial Chemical Substances
GHS	Globally Harmonized classification and labelling System of chemicals, Fifth revised edition 2013
HSE	Health and Safety Executive, UK
IBC	International Bulk Chemical code
IC <sub>50</sub>	50% Inhibition Concentration
IUPAC	International Union of Pure and Applied Chemistry
LC <sub>50</sub>	50% Lethal Concentration
LD <sub>50</sub>	50% Lethal Dose
LOEL	Lowest Observed Effect Level
MAK	Maximale Arbeitsplatz-Konzentration
MARPOL	Set of rules from the International Maritime Organisation (IMO) for prevention of sea pollution
n.o.s.	Not otherwise specified
OECD	Organisation for Economic Cooperation and Development.
OSHA	Occupational Safety and Health Administration
PBT	Persistent, Bioaccumulative, Toxic
PEL	Personal Exposure Limit
PNEC	Predicted No Effect Concentration
Reg.	Regulation
STOT	Specific Target Organ Toxicity
TLV	Threshold Limit Value
TWA	Time Weighted Average
vPvB	very Persistent, very Bioaccumulative
WEL	Workplace Exposure Limit

References .....

Data on ingredients are available from published literature and can be found several places.

Method for classification .....

Calculation method

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Used hazard statement ..... H301 Toxic if swallowed.  
 H302 Harmful if swallowed.  
 H311 Toxic in contact with skin.  
 H314 Causes severe skin burns and eye damage.  
 H318 Causes serious eye damage.  
 H335 May cause respiratory irritation.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.

Advice on training ..... This material should only be used by persons who are made aware of its hazardous properties and have been instructed in the required safety precautions.

The information provided in this safety data sheet is believed to be accurate and reliable, but uses of the product vary and situations unforeseen by FMC Corporation may exist. The user has to check the validity of the information under local circumstances.

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