VENZAR® FLOWABLE

Version 4.0 (replaces: Version 3.0)
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This Safety Data Sheet adheres to the standards and regulatory requirements of Great Britain and may not meet the regulatory requirements in other countries.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : VENZAR® FLOWABLE

Synonyms : B10063106
DPX-B0634 44SC

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Herbicide

1.3. Details of the supplier of the safety data sheet

Company : Du Pont (UK) Limited
Wedgwood Way
Stevenage, Herts. SG1 4QN
United Kingdom

Telephone : +44 (0) 1438 734 000

E-mail address : sds-support@che.dupont.com

1.4. Emergency telephone number

Emergency telephone number : +44 (0) 8456 006 640

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Acute aquatic toxicity, Category 1	H400: Very toxic to aquatic life.
Chronic aquatic toxicity, Category 1	H410: Very toxic to aquatic life with long lasting effects.
Dangerous for the environment	R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Environment

Warning

H410	Very toxic to aquatic life with long lasting effects.
Special labelling of certain substances and mixtures	Contains: Polyethylene oxide mono[2,4,6-tris(alpha-methylbenzyl)phenyl] ether, phosphate, 2,2',2''-iminotriethanol salt / The following percentage of the mixture consists of ingredient(s) with unknown acute dermal toxicity:**,** 4.29 % EUH401: To avoid risks to human health and the environment, comply with the instructions for use.**,**
P391 P501	Collect spillage. Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
SP 1	Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Registration number	Classification according to Directive 67/548/EEC	Classification according to Regulation (EU) 1272/2008 (CLP)	Concentration (% w/w)
Lenacil (CAS-No.2164-08-1) (EC-No.218-499-0)			
	N;R50/53	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	39.6 %

The above products are REACH compliant; Registration number(s) may not be provided because substance(s) are exempted, not yet registered under REACH or are registered under another regulatory process (biocide uses, plant protection products), etc.

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	:	Never give anything by mouth to an unconscious person. For specialist advice physicians should contact the National Poisons Information Service: Tel. 111 for England and Wales and Tel. 08454 24 24 24 for Scotland.
Inhalation	:	Move to fresh air. Artificial respiration and/or oxygen may be necessary. Consult a physician after significant exposure.
Skin contact	:	Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. In the case of skin irritation or allergic reactions see a physician. Wash contaminated clothing before re-use.
Eye contact	:	If easy to do, remove contact lens, if worn. Hold eye open and rinse slowly and gently with water for 15-20 minutes. If eye irritation persists, consult a specialist.
Ingestion	:	DO NOT induce vomiting unless directed to do so by a physician or poison control center. Obtain medical attention. If victim is conscious: Rinse mouth with water.

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

Symptoms	:	No cases of human intoxication are known and the symptoms of experimental intoxication are not known.

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

Treatment	:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Water spray, Dry chemical, Carbon dioxide (CO2), Foam
Extinguishing media which shall not be used for safety reasons	:	High volume water jet, (contamination risk)

5.2. Special hazards arising from the substance or mixture

no data available

5.3. Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.
Further information	:	Prevent fire extinguishing water from contaminating surface water or the ground water system. 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.
	:	(on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers/tanks with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Control access to area. Use personal protective equipment. Take precautionary measures against static discharges. Keep people away from and upwind of spill/leak. Refer to protective measures listed in sections 7 and 8.

6.2. Environmental precautions

Environmental precautions	:	Use appropriate container to avoid environmental contamination. Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. If the spill area is porous, the contaminated material must be collected for subsequent treatment or disposal. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up	:	Clean-up methods - small spillage Prevent further leakage or spillage. Soak up with inert absorbent material. Shovel into suitable container for disposal. Clean-up methods - large spillage Prevent further leakage or spillage. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Large spills should be collected mechanically (remove by pumping) for disposal. Collect leaking liquid in sealable (metal/plastic) containers. Collect and contain contaminated absorbent and dike material for disposal.
Other information	:	Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

6.4. Reference to other sections

For disposal instructions see section 13., For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	:	Use only according to our recommendations. Wear personal protective equipment. For personal protection see section 8. Use only clean equipment. Provide adequate ventilation. Do not breathe vapours or spray mist. When opening containers, avoid breathing vapours that may be emanating. Prepare the working solution as given on the label(s) and/or the user instructions. Use prepared working solution as soon as possible - Do not store. To avoid spills during handling keep bottle on a metal tray. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Never return unused material to storage receptacle. Avoid exceeding the given occupational exposure limits (see section 8).
Advice on protection against fire and explosion	:	Keep away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Store in original container. Keep in properly labelled containers. Keep tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children.
Advice on common storage	:	Do not freeze. Keep away from: Bases
Other data	:	Stable under recommended storage conditions.

7.3. Specific end use(s)

Plant protection products subject to Regulation (EC) No 1107/2009.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

If sub-section is empty then no values are applicable.

8.2. Exposure controls

Engineering measures	:	Ensure adequate ventilation, especially in confined areas. Use sufficient ventilation to keep employee exposure below recommended limits.
Eye protection	:	Safety glasses with side-shields conforming to EN166
Hand protection	:	Material: Nitrile rubber Glove thickness: 0.3 mm Glove length: Standard glove type. Protection index: Class 6 Wearing time: > 480 min The selected protective gloves have to satisfy the specifications of EU Directive

89/686/EEC and the standard EN 374 derived from it. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Gloves must be inspected prior to use. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Gauntlets of 35 cm long or longer shall be worn over the combination sleeve. Before removing gloves clean them with soap and water.

Skin and body protection : Manufacturing and processing work: Full protective clothing Type 6 (EN 13034)

Mixer and loaders must wear: Full protective clothing Type 6 (EN 13034) Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

Spray application - outdoor: Tractor / sprayer with hood: No personal body protection normally required. Tractor / sprayer without hood: Low application: Full protective clothing Type 6 (EN 13034) Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

Backpack / knapsack sprayer: Full protective clothing Type 6 (EN 13034) Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

Spray application - indoor: Motorized greenhouse sprayer: Backpack / knapsack sprayer: Full protective clothing Type 5 + 6 (EN ISO 13982-2 / EN 13034) Nitrile rubber boots (EN 13832-3 / EN ISO 20345).

Mechanical automatized spray application in closed tunnel: No personal body protection normally required.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. All chemical protective clothing should be visually inspected prior to use. Clothing and gloves should be replaced in case of chemical or physical damage or if contaminated. Only protected handlers may be in the area during application.

Respiratory protection : Manufacturing and processing work: Half mask with vapour filter A1 (EN 141)

Mixer and loaders must wear: Half mask with vapour filter A1 (EN 141)

Spray application - outdoor: Tractor / sprayer with hood: No personal respiratory protective equipment normally required. Tractor / sprayer without hood:

Low application: No personal respiratory protective equipment normally required.

Backpack / knapsack sprayer: Low application: Half mask with a particle filter FFP1 (EN149)

Spray application - indoor: Motorized greenhouse sprayer: Backpack / knapsack sprayer: Half mask with a particle filter P1 (EN 143).

Mechanical automatized spray application in closed tunnel: No personal respiratory protective equipment normally required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	: Aqueous solution
Colour	: off-white
Odour	: none
pH	: no data available
Flash point	: Not applicable
Ignition temperature	: does not ignite
Thermal decomposition	: Not available for this mixture.
Auto-ignition temperature	: Not available for this mixture.
Oxidizing properties	: The product is not oxidizing.
Explosive properties	: Not explosive
Lower explosion limit/ lower flammability limit	: Not available for this mixture.
Upper explosion limit/ upper flammability limit	: Not available for this mixture.
Vapour pressure	: Not available for this mixture.
Relative density	: Not available for this mixture.
Water solubility	: dispersible
Partition coefficient: n-octanol/water	: Not applicable
Relative vapour density	: Not available for this mixture.
Evaporation rate	: Not available for this mixture.

9.2. Other information

Phys.-chem./other information	: No other data to be specially mentioned.

SECTION 10: Stability and reactivity

10.1. Reactivity : No hazards to be specially mentioned.

10.2. Chemical stability : The product is chemically stable.

10.3. Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use. Polymerization will not occur. No decomposition if stored and applied as directed.

10.4. Conditions to avoid : Protect from frost.

10.5. Incompatible materials : No materials to be especially mentioned.

10.6. Hazardous decomposition products : Carbon oxides
Nitrogen oxides (NOx)
Decomposes by reaction with alkaline solutions.
Heating can release vapours which can be ignited.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity

LD50 / Rat : > 11,000 mg/kg

Acute inhalation toxicity

LC50 / Rat : > 5.2 mg/l

Acute dermal toxicity

- Lenacil
  LD50 / Rat : > 5,000 mg/kg

Skin irritation

Rabbit
Result: No skin irritation

Eye irritation

Rabbit
Result: No eye irritation

Sensitisation

Guinea pig
Result: Animal test did not cause sensitization by skin contact.

Repeated dose toxicity

- Lenacil
  Oral Rat
  Exposure time: 90 d
  The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions., Liver effects

Mutagenicity assessment

- Lenacil
  Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Animal testing did not show any mutagenic effects.

Carcinogenicity assessment

- Lenacil
  Tumors were observed in laboratory animals, yet are not considered relevant to humans.

Toxicity to reproduction assessment

- Lenacil
  No toxicity to reproduction

STOT - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

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

Aspiration hazard

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

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish

LC50 / 96 h / Oncorhynchus mykiss (rainbow trout): > 2.63 mg/l

Toxicity to aquatic plants

EC50 / 72 h / Algae: 0.0084 mg/l

Toxicity to aquatic invertebrates

EC50 / 48 h / Daphnia (water flea): > 3.53 mg/l

Chronic toxicity to fish

- Lenacil

NOEC / 21 d / Oncorhynchus mykiss (rainbow trout): > 2.3 mg/l

Chronic toxicity to aquatic Invertebrates

- Lenacil
  NOEC / 21 d / Daphnia magna (Water flea): 0.48 mg/l

12.2. Persistence and degradability

Biodegradability

Not readily biodegradable. Estimation based on data obtained on active ingredient.

12.3. Bioaccumulative potential

Bioaccumulation

Does not bioaccumulate. Estimation based on data obtained on active ingredient.

12.4. Mobility in soil

Mobility in soil

The product is not expected to be mobile in soils.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment
This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). / This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

12.6. Other adverse effects

Additional ecological information

See product label for additional application instructions relating to environmental precautions.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product	:	In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not contaminate ponds, waterways or ditches with chemical or used container.
Contaminated packaging	:	Do not re-use empty containers.

SECTION 14: Transport information

ADR

14.1.	UN number:	3082
14.2.	UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Lenacil)

14.3.	Transport hazard class(es):	9
14.4.	Packing group:	III
14.5.	Environmental hazards:	For further information see Section 12.
14.6.	Special precautions for user:	
	Tunnel restriction code:	(E)

IATA_C

14.1.	UN number:	3082
14.2.	UN proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (Lenacil)
14.3.	Transport hazard class(es):	9
14.4.	Packing group:	III
14.5.	Environmental hazards :	For further information see Section 12.
14.6.	Special precautions for user:	

DuPont internal recommendations and transport guidance: ICAO / IATA cargo aircraft only

IMDG

14.1.	UN number:	3082
14.2.	UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Lenacil)
14.3.	Transport hazard class(es):	9
14.4.	Packing group:	III
14.5.	Environmental hazards :	Marine pollutant
14.6.	Special precautions for user:	

no data available

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

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Other regulations : The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.Take note of Dir 94/33/EC on the protection of young people at work.Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers.Take note of Directive 96/82/EC on the control of major-accident hazards involving dangerous substances.Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values.

15.2. Chemical Safety Assessment

A Chemical Safety Assessment is not required for this/these products
The mixture is registered as a plant protection product under Regulation (EC) No. 1107/2009.
Refer to the label for exposure assessment information.

SECTION 16: Other information

Text of R-phrases mentioned in Section 3

R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of H-Statements referred to under section 3.

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Other information	professional use

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-No.	Chemical Abstracts Service number
CLP	Classification, Labelling and Packaging
EbC50	Concentration at which 50% reduction of biomass is observed
EC50	Median effective concentration
EN	European Norm
EPA	Environmental Protection Agency
ErC50	Concentration at which a 50% inhibition of growth rate is observed
EyC50	Concentration at which 50 % inhibition of yield is observed
IATA_C	International Air Transport Association (Cargo)
IBC	International Bulk Chemical Code
ICAO	International Civil Aviation Organization
ISO	International Standard Organization
IMDG	International Maritime Dangerous Goods
LC50	Median Lethal Concentration
LD50	Median Lethal Dose
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest observed effect level
MARPOL	International Convention for the Prevention of Marine Pollution from Ships
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No observed adverse effect level
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
OECD	Organisation for Economic Co-operation and Development
OPPTS	Office of Prevention, Pesticides and Toxic Substances
PBT	Persistent, Bioaccumulative and Toxic
STEL	Short term exposure limit
TWA	Time Weighted Average (TWA):
vPvB	very Persistent and very Bioaccumulative

Further information

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Take notice of the directions of use on the label., Before use read DuPont's safety information.

Significant change from previous version is denoted with a double bar.

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