

Issuing Date 21-Sep-2022

Revision Date 05-Jun-2023

Revision Number 2

1. Identification

Product identifier

Product Name GCS 2,4-D Ester LV 6

Other means of identification

Product Code(s) 94730-40

UN/ID no UN3082

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Herbicide

Restrictions on use Use only as directed on product label

Details of the supplier of the safety data sheet

Manufacturer Address

Generic Crop Science, LLC
1887 Whitney Mesa Drive #9740
Henderson, NV 89014-2069
1-844-200-FARM (3276)

E-mail regulatory@genericcropscience.com

Emergency telephone number

Emergency telephone CHEMTREC: +1-703-527-3887 (INTERNATIONAL)
1-800-424-9300 (NORTH AMERICA)
24/7 Health Emergencies: Call 800-858-7378 (National Pesticide Information Center)

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Vapors)	Category 3
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 2

Hazards not otherwise classified (HNOC)

Not applicable.

Label elements

Danger**Hazard statements**

Harmful if swallowed.

Harmful in contact with skin.

Toxic if inhaled.

Causes skin irritation.

Causes serious eye damage.

May cause an allergic skin reaction.

Suspected of causing cancer.

Precautionary Statements - Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/clothing and eye/face protection.

Wash face, hands and any exposed skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Avoid breathing vapors or mists.

Use only outdoors or in a well-ventilated area.

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

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention.

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.

IF ON SKIN: Wash with plenty of water and soap.

Call a POISON CENTER or doctor if you feel unwell.

Take off contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor.

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

Rinse mouth.

Precautionary Statements - Storage

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Precautionary Statements - Disposal

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

Other information

May be harmful if inhaled. Very toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

Unknown acute toxicity

96.52 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

3. Composition/information on ingredients**Substance**

Not applicable.

Mixture

Chemical name	CAS No	Weight-%	Trade secret
2,4-D 2-Ethylhexyl ester	1928-43-4	80 - 90	*
Mixture of ionic and anionic surfactants	-	5 - 10	*
2-Ethylhexanol	104-76-7	1 - 5	*
2,4-D	94-75-7	1 - < 3	*
Dodecylbenzenesulfonic acid	27176-87-0	0.1 - 0.5	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures**Description of first aid measures**

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. IF exposed or concerned: Get medical advice/attention.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur. If breathing has stopped, give artificial respiration. Get medical attention immediately. Immediate medical attention is required. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen.
Eye contact	Get immediate medical attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an allergic skin reaction. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not breathe vapor or mist. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms	Burning sensation. Itching. Rashes. Hives. Coughing and/ or wheezing. Difficulty in breathing.
Effects of Exposure	No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the
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	surrounding environment.
Unsuitable extinguishing media	None known based on information supplied.
Specific hazards arising from the chemical	Product is or contains a sensitizer. May cause sensitization by skin contact. May emit toxic fumes under fire conditions.
Hazardous combustion products	Carbon monoxide, Carbon dioxide (CO ₂).
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Do not breathe vapor or mist.
Other information	Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

7. Handling and storage

Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. In case of insufficient ventilation, wear suitable respiratory equipment. Take off contaminated clothing and wash before reuse. Do not breathe vapor or mist. Handle product only in closed system or provide appropriate exhaust ventilation.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.
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8. Exposure controls/personal protection

Control parameters

Exposure Limits	The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.
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Chemical name	ACGIH TLV	OSHA PEL	NIOSH
2-Ethylhexanol 104-76-7	TWA: 5 ppm	-	-
2,4-D 94-75-7	TWA: 10 mg/m ³ inhalable particulate matter	TWA: 10 mg/m ³ (vacated) TWA: 10 mg/m ³	IDLH: 100 mg/m ³ TWA: 10 mg/m ³

Appropriate engineering controls

Engineering controls Showers
 Eyewash stations
 Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Hand protection Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Do not breathe vapor or mist. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended.

9. Physical and chemical properties**Information on basic physical and chemical properties**

Appearance Dark amber, Transparent liquid
Physical state Liquid
Color Dark amber
Odor Bitter
Odor threshold No data available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH		No data available
pH (as aqueous solution)	3.71	solution (1 %)
Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
Flash point	99.5 °C / 211.1 °F	
Evaporation rate		No data available
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Vapor pressure		No data available
Relative vapor density		No data available
Relative density		No data available
Water solubility		No data available
Solubility(ies)		No data available

Partition coefficient	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Kinematic viscosity	No data available
Dynamic viscosity	55.6 cP @ 24°C

4.0 cP @ 40°C

Other information

Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
VOC content	No information available
Liquid Density	1.155 g/cm ³ at 20°C
Bulk density	No information available

10. Stability and reactivity

Reactivity	None under normal use conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Excessive heat. Incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	None known based on information supplied.

11. Toxicological information**Information on likely routes of exposure****Product Information**

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. Toxic by inhalation. (based on components). May be harmful if inhaled.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes.
Skin contact	Specific test data for the substance or mixture is not available. May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Causes skin irritation.
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Redness. Burning. May cause blindness. Itching. Rashes. Hives. May cause redness and tearing of the eyes. Coughing and/ or wheezing. Difficulty in breathing.
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Acute toxicity

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Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral)	546.80 mg/kg
ATEmix (dermal)	1,899.50 mg/kg
ATEmix (inhalation-vapor)	2.06 mg/l

Unknown acute toxicity

96.52 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
2,4-D 2-Ethylhexyl ester 1928-43-4	= 300 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.4 mg/L (Rat) 4 h
2-Ethylhexanol 104-76-7	= 3730 mg/kg (Rat)	= 1980 mg/kg (Rabbit)	> 227 ppm (Rat) 6 h
2,4-D 94-75-7	= 420 mg/kg (Rat)	= 1400 mg/kg (Rabbit)	-
Dodecylbenzenesulfonic acid 27176-87-0	= 1260 mg/kg (Rat)	631 - 1000 mg/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Classification based on data available for ingredients. Causes skin irritation.
Serious eye damage/eye irritation	Classification based on data available for ingredients. Causes burns. Causes serious eye damage.
Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	No information available.
Carcinogenicity	Contains a known or suspected carcinogen. Classification based on data available for ingredients. Suspected of causing cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
2,4-D 2-Ethylhexyl ester 1928-43-4	-	Group 2B	-	X
2-Ethylhexanol 104-76-7	A3	-	-	-
2,4-D 94-75-7	-	Group 2B	-	X

Legend

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.

Target organ effects Liver. Kidney. Skin. Central nervous system.

Aspiration hazard No information available.

Other adverse effects No information available.

Interactive effects No information available.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
2,4-D 2-Ethylhexyl ester 1928-43-4	-	LC50: 6 - 8.7mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: =7.8mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: <11.5mg/L (96h, <i>Lepomis macrochirus</i>)	-	-
2-Ethylhexanol 104-76-7	EC50: =11.5mg/L (72h, <i>Desmodesmus subspicatus</i>)	LC50: 32 - 37mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: >7.5mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: 27 - 29.5mg/L (96h, <i>Pimephales promelas</i>) LC50: =29.7mg/L (96h, <i>Pimephales promelas</i>) LC50: 10.0 - 33.0mg/L (96h, <i>Lepomis macrochirus</i>)	-	EC50: =39mg/L (48h, <i>Daphnia magna</i>)
2,4-D 94-75-7	EC50: 23.7 - 24.7mg/L (96h, <i>Pseudokirchneriella subcapitata</i>)	LC50: =20mg/L (96h, <i>Cyprinus carpio</i>) LC50: 127.9 - 141.7mg/L (96h, <i>Cyprinus carpio</i>) LC50: =180mg/L (96h, <i>Lepomis macrochirus</i>) LC50: 77 - 157mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: 2450 - 3160mg/L (96h, <i>Oryzias latipes</i>) LC50: 103 - 171mg/L (96h, <i>Pimephales promelas</i>) LC50: =165mg/L (96h, <i>Pimephales promelas</i>) LC50: =70.7mg/L (96h, <i>Poecilia reticulata</i>) LC50: 6.3 - 11.0mg/L (96h, <i>Poecilia reticulata</i>)	-	EC50: 17.6 - 32.6mg/L (48h, <i>Daphnia magna</i>)
Dodecylbenzenesulfonic acid 27176-87-0	EC50: =29mg/L (96h, <i>Pseudokirchneriella subcapitata</i>)	LC50: =10.8mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: 3.5 - 10mg/L (96h, <i>Brachydanio rerio</i>)	-	EC50: =5.88mg/L (48h, <i>Daphnia magna</i>)

Persistence and degradability No information available.

Bioaccumulation**Component Information**

Chemical name	Partition coefficient
2,4-D 2-Ethylhexyl ester 1928-43-4	5.78
2-Ethylhexanol 104-76-7	2.9
2,4-D 94-75-7	2.83

Other adverse effects No information available.

13. Disposal considerations**Disposal methods**

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. Transport information**DOT**

The following classification only applies when a single container holds 100 or more lbs of 2,4-D Ester

UN/ID no UN3082

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D Ester)

Transport hazard class(es) 9

Packing group III

Reportable Quantity (RQ) (2,4-D 2-Ethylhexyl ester: RQ (kg)= 45.40, 2,4-D: RQ (kg)= 45.40) 2,4-D 2-Ethylhexyl ester: RQ (lb)= 100.00, 2,4-D: RQ (lb)= 100.00

Reportable quantity kg (calculated) 2,4-D 2-Ethylhexyl ester: RQ (kg)= 51.42, 2,4-D: RQ (kg)= 4540.00

Reportable quantity lbs. (calculated) 2,4-D 2-Ethylhexyl ester: RQ (lb)= 113.00, 2,4-D: RQ (lb)= 10000.00

Special Provisions 8, 146, 173, 335, 441, IB3, T4, TP1, TP29

DOT Marine Pollutant P

Marine pollutant 2,4-D 2-Ethylhexyl ester

Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D 2-Ethylhexyl ester), 9, III, Marine pollutant

Emergency Response Guide Number 171

IATA

Not regulated in quantities less than 5 liter per individual container. See IATA SP A197

UN number or ID number UN3082

UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. (2,4-D 2-Ethylhexyl ester)

Transport hazard class(es) 9

Packing group III

IATA Technical Name 2,4-D 2-Ethylhexyl ester

Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (2,4-D 2-Ethylhexyl ester), 9, III

Special Provisions A97, A158, A197

ERG Code 9L

IMDG

Not regulated in quantities less than 5 liter per individual container. See IMDG 2.10.2.7

UN number or ID number	UN3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D 2-Ethylhexyl ester)
Transport hazard class(es)	9
Packing group	III
IMDG Technical Name	2,4-D 2-Ethylhexyl ester
Marine pollutant	P
Marine pollutant Description	2,4-D 2-Ethylhexyl ester
Special Provisions	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D 2-Ethylhexyl ester), 9, III, Marine pollutant
EmS-No.	274, 335, 969
	F-A, S-F

15. Regulatory information

International Inventories

Contact supplier for inventory compliance status

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
2,4-D 2-Ethylhexyl ester - 1928-43-4	0.1
2,4-D - 94-75-7	0.1

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
2,4-D 2-Ethylhexyl ester 1928-43-4	100 lb	-	-	-
2,4-D 94-75-7	100 lb	-	-	X
Dodecylbenzenesulfonic acid 27176-87-0	1000 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
2,4-D 2-Ethylhexyl ester 1928-43-4	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ
2,4-D 94-75-7	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ
Dodecylbenzenesulfonic acid 27176-87-0	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
2,4-D 2-Ethylhexyl ester 1928-43-4	X	-	-
2-Ethylhexanol 104-76-7	-	X	X
2,4-D 94-75-7	X	X	X
Dodecylbenzenesulfonic acid 27176-87-0	X	X	X
Glycerin 56-81-5	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number 94730-40

16. Other information

NFPA **Health hazards** 2 **Flammability** 1 **Instability** 0 **Special hazards** -
HMIS **Health hazards** 2* **Flammability** 1 **Physical hazards** 0 **Personal protection** X
Chronic Hazard Star Legend * = Chronic Health Hazard

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: Exposure controls/personal protection**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)
 Ceiling Maximum limit value * Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AELG(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 Japan GHS Classification
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Issuing Date 21-Sep-2022

Revision Date 05-Jun-2023

Revision Note SDS sections updated: 1, 14, 15.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet