

Version 2.0

Revision Date 12/08/2015 Ref. 130000130053

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : DuPont[™] Trivence[™] Herbicide Tradename/Synonym : DPX-R5W13 61.2 WG Blend

DPX-R5W13

CHLORIMURON ETHYL: Ethyl 2-[[[(4-chloro-6-methoxypyrimidin-2-

yl)amino]carbonyl]amino]sulfonyl]benzoate

FLUMIOXAZIN: 2-[7-fluor-3,4-dihydro-3oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione

METRIBUZIN: 4-Amino-6-(1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-

5(4H)-one

Product Use : Herbicide

Restrictions on use : This product is intended to be used as a pesticide

Manufacturer/Supplier : DuPont

974 Centre Road

Wilmington, DE 19805, USA

Product Information : 1-800-441-7515 (outside the U.S. 1-302-774-1000) Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)

Transport Emergency : CHEMTREC: +1-800-424-9300 (outside the U.S. +1-703-527-3887)

SECTION 2. HAZARDS IDENTIFICATION

Product hazard category

Acute toxicity (Oral)

Acute toxicity (Inhalation)

Skin sensitisation

Reproductive toxicity

Specific target organ toxicity
Category 4

Sub-category 1B

Category 2

Category 3

single exposure



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Label content

Pictogram :





Signal word : Warning

Hazardous warnings : Harmful if swallowed or if inhaled

May cause an allergic skin reaction. May cause respiratory irritation. May cause drowsiness or dizziness.

Suspected of damaging fertility or the unborn child.



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Hazardous prevention

measures

: Obtain special instructions before use.

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

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.

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

Wear protective gloves.

Use personal protective equipment as required.

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel

unwell.

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

IF INHALED: Remove victim to fresh air and keep at rest in a position

comfortable for breathing.

IF exposed or concerned: Get medical advice/attention.

Rinse mouth.

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

Wash contaminated clothing before reuse.

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

Store locked up.

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

Other hazards

If you mill or grind this product you may change its toxicological properties.

Information presented in Section 2 conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration



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Metribuzin	21087-64-9	44.6 %
Chlorimuron ethyl	90982-32-4	3.9 %
Flumioxazin	103361-09-7	12.8 %
Titanium dioxide	13463-67-7	0.5 - 1 %
Fatty acids, tallow, sodium salts	8052-48-0	0.5 - 1 %
Other Ingredients		36.7 - 37.7 %

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4. FIRST AID MEASURES

General advice : For medical emergencies involving this product, call toll free 1-800-441-3637.

See Label for Additional Precautions and Directions for Use.

Information presented in Section 4 conforms to the requirements of the

Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state

Regulatory Agencies.

Have the product container or label with you when calling a poison control

center or doctor, or going for treatment.

Inhalation : Move to fresh air. If person is not breathing, call 911 or an ambulance, then

give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison

control center or doctor for treatment advice.



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Skin contact : Take off all contaminated clothing immediately. Rinse skin immediately with

plenty of water for 15-20 minutes. Call a poison control center or doctor for

treatment advice.

Eye contact : Hold eye open and rinse slowly and gently with water for 15-20 minutes.

Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Ingestion : Call a poison control center or doctor for treatment advice. Have person sip a

glass of water if able to swallow. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Do not give anything by mouth to an

unconscious person.

Most important

symptoms/effects, acute

and delayed

Protection of first-aiders Notes to physician : No applicable data available.

No applicable data available.No applicable data available.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray, Foam, Dry chemical, Carbon dioxide (CO2)

Unsuitable extinguishing

media

: High volume water jet, (contamination risk)

Specific hazards : No applicable data available.

Special protective equipment

for firefighters

: Wear full protective clothing and self-contained breathing apparatus.

Further information : (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

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.



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Safeguards (Personnel) : Evacuate personnel, thoroughly ventilate area, use self-contained breathing

apparatus. Use personal protective equipment.

Environmental precautions : Prevent material from entering sewers, waterways, or low areas.

Spill Cleanup : Sweep up and shovel into suitable containers for disposal.

Accidental Release Measures : Never return spills in original containers for re-use. Dispose of in accordance

with local regulations.

SECTION 7. HANDLING AND STORAGE

Handling (Personnel) : Wash hands thoroughly with soap and water after handling and before eating,

drinking, chewing gum, using tobacco, or using the toilet. Remove

clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing. Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon

as possible, wash thoroughly and change into clean clothing.

Handling (Physical Aspects) : Keep away from heat and sources of ignition.

Dust explosion class : No a

Storage

: No applicable data available.

: Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in original container. Store in a cool, dry place. Keep out of the reach of

children.

Storage period : No applicable data available.

Storage temperature : No applicable data available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls : Information presented in Section 8 conforms to the requirements of the

Occupational Safety and Health Administration (OSHA) Hazard

Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies. Ensure adequate ventilation. When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE



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requirements may be reduced or modified as specified in the WPS. IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified for "Applicators and Other Handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

Personal protective equipment

Skin and body protection

Mixers, loaders, applicators and other handlers must wear:

Long sleeved shirt and long pants

Chemical resistant gloves made of any waterproof material, such as

polyethylene or polyvinyl chloride.

Shoes plus socks

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has

been treated, such as plants, soil, or water, is:

Coveralls

Chemical resistant gloves made of any waterproof material, such as

polyethylene or polyvinyl chloride.

Shoes plus socks

Protective measures

: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Use this product in accordance with its label.

Exposure Guidelines
Exposure Limit Values

Metribuzin

TLV (ACGIH) 5 mg/m3 TWA

AEL * (DUPONT) 5 mg/m3 8 & 12 hr. TWA Total dust.

Chlorimuron ethyl

AEL * (DUPONT) 10 mg/m3 8 & 12 hr. TWA Total dust.
AEL * (DUPONT) 5 mg/m3 8 & 12 hr. TWA Respirable dust.

Flumioxazin

No applicable data available.

Titanium dioxide



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Permissible (OSHA) 15 mg/m3 8 hr. TWA Total dust.

exposure limit:

TLV (ACGIH) 10 mg/m3 TWA

AEL * (DUPONT) 10 mg/m3 8 & 12 hr. TWA Total dust.
AEL * (DUPONT) 5 mg/m3 8 & 12 hr. TWA Respirable dust.

Fatty acids, tallow, sodium salts No applicable data available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : solid

Form : solid, granules

Color : blend of white and brown

Odor : pungent

Odor threshold : No applicable data available.

pH : 7.6

Melting point/range : No applicable data available.

Boiling point/boiling range : No applicable data available.

Flash point : No applicable data available.

Evaporation rate : No applicable data available.

Flammability (solid, gas) : No applicable data available.

Upper explosion limit : No applicable data available.

Lower explosion limit : No applicable data available.

Vapour Pressure : No applicable data available.

^{*} AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.



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Vapour density : No applicable data available.

Specific gravity (Relative

density)

: No applicable data available.

Bulk density : 0.52 - 0.72 g/cm3

Water solubility : No applicable data available.

Solubility(ies) : No applicable data available.

Partition coefficient: n-

octanol/water

No applicable data available.

Auto-ignition temperature : No applicable data available.

Decomposition temperature : No applicable data available.

Viscosity, kinematic : No applicable data available.

Viscosity, dynamic : No applicable data available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No applicable data available.

Chemical stability : Stable at normal temperatures and storage conditions.

Possibility of hazardous

reactions

Polymerization will not occur.

Conditions to avoid : None reasonably foreseeable.

Incompatible materials : No materials to be especially mentioned.

Hazardous decomposition

products

No applicable data available.

SECTION 11. TOXICOLOGICAL INFORMATION

DuPont[™] Trivence[™] Herbicide

Inhalation 4 h Acute toxicity estimate

: > 2.7 mg/l, Rat

Dermal Acute toxicity : > 3,108 mg/kg, Rabbit



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estimate

Dermal : Rat

Oral Acute toxicity estimate : 1,520 mg/kg , Rat

Skin irritation : No skin irritation, Rabbit

Minimal effects that do not meet the threshold for classification.

Eye irritation : No eye irritation, Rabbit

Minimal effects that do not meet the threshold for classification.

Sensitisation : The product is a skin sensitiser, sub-category 1B., Guinea pig

mice

Further information : Information given is based on data on the components.

Further information : Information presented in this Section conforms to the requirements of

the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide

Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory

Agencies.

Metribuzin

Repeated dose toxicity : Inhalation

Rat - 21 d dust/mist

NOAEL: 0.72 mg/l LOAEL: > 0.72 mg/l

No toxicologically significant effects were found.

Carcinogenicity : Not classifiable as a human carcinogen.

Animal testing did not show any carcinogenic effects.

Mutagenicity : Animal testing did not show any mutagenic effects.

Did not cause genetic damage in cultured bacterial cells.

Genetic damage in cultured mammalian cells was observed in some

laboratory tests but not in others.

Reproductive toxicity : No toxicity to reproduction

No effects on or via lactation

Animal testing showed no reproductive toxicity.



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Teratogenicity : Animal testing showed effects on embryo-fetal development at levels

equal to or above those causing maternal toxicity.

Chlorimuron ethyl

Repeated dose toxicity

The following effects occurred at levels of exposure that significantly

exceed those expected under labeled usage conditions.

Dermal Rabbit

-

No toxicologically significant effects were found.

Oral Dog

No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for

classification., Abnormal decrease in number of red blood cells

Oral Rat

No adverse effect has been observed in chronic toxicity tests.

Carcinogenicity : Not classifiable as a human carcinogen.

Animal testing did not show any carcinogenic effects.

Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic

effects.

Animal testing did not show any mutagenic effects.

Reproductive toxicity : No toxicity to reproduction

Teratogenicity : Animal testing showed effects on embryo-fetal development at levels

equal to or above those causing maternal toxicity.

Flumioxazin

Repeated dose toxicity : Ingestion

Rat

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No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for

classification., altered hematology, Organ weight changes



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Ingestion Dog

No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for

classification., altered hematology, Organ weight changes

: Animal testing did not show any carcinogenic effects. Carcinogenicity

Mutagenicity : Animal testing did not show any mutagenic effects.

Did not cause genetic damage in cultured bacterial cells.

Genetic damage in cultured mammalian cells was observed in some

laboratory tests but not in others.

Reproductive toxicity Some evidence of adverse effects on sexual function and fertility,

and/or on development, based on animal experiments.

Teratogenicity Animal testing showed effects on embryo-foetal development at levels

below those causing maternal toxicity.

Titanium dioxide

Repeated dose toxicity Oral

Rat

NOAEL: 1,000 mg/kgMethod: OECD Test Guideline 408

No toxicologically significant effects were found.

Carcinogenicity Not classifiable as a human carcinogen.

Overall weight of evidence indicates that the substance is not

carcinogenic.

Mutagenicity : Animal testing did not show any mutagenic effects.

Tests on bacterial or mammalian cell cultures did not show mutagenic

effects.

Animal testing showed no reproductive toxicity. Reproductive toxicity

Teratogenicity Animal testing showed no developmental toxicity.

Fatty acids, tallow, sodium salts

Repeated dose toxicity Ingestion

> Rat - 90 d



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NOAEL: 200 mg/kgMethod: see user defined free text

No toxicologically significant effects were found., Information given is

based on data obtained from similar substances.

Carcinogenicity : Not classifiable as a human carcinogen.

Animal testing did not show any carcinogenic effects.

Information given is based on data obtained from similar substances.

Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic

effects.

Has not been tested in animals.

Information given is based on data obtained from similar substances.

Reproductive toxicity : No toxicity to reproduction

Animal testing showed no reproductive toxicity.

Information given is based on data obtained from similar substances.

Teratogenicity : Animal testing showed no developmental toxicity.

Information given is based on data obtained from similar substances.

Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

Material IARC NTP OSHA

Titanium dioxide 2B

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity

Metribuzin

96 h LC50 : Oncorhynchus mykiss (rainbow trout) 74.6 mg/l

72 h EC50 : Desmodesmus subspicatus (green algae) 0.007 mg/l

48 h EC50 : Daphnia magna (Water flea) 98.5 mg/l



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21 d : NOEC Oncorhynchus mykiss (rainbow trout) 5.6 mg/l

21 d : NOEC Daphnia magna (Water flea) 0.32 mg/l

Chlorimuron ethyl

96 h LC50 : Oncorhynchus mykiss (rainbow trout) > 1,000 mg/l

96 h LC50 : Lepomis macrochirus (Bluegill sunfish) > 100 mg/l

72 h EC50 : Pseudokirchneriella subcapitata (green algae) 0.001 mg/l

48 h EC50 : Daphnia magna (Water flea) > 1,000 mg/l

Flumioxazin

96 h LC50 : Cyprinus carpio (Carp) > 1.3 mg/l

72 h EC50 : Desmodesmus subspicatus (green algae) 0.0006 mg/l

72 h NOEC : Desmodesmus subspicatus (green algae) 0.00023 mg/l

48 h EC50 : Daphnia magna (Water flea) 17 mg/l

Titanium dioxide

96 h LC50 : Pimephales promelas (fathead minnow) > 1,000 mg/l

72 h ErC50 : Pseudokirchneriella subcapitata (green algae) > 100 mg/l see user

defined free text

72 h NOEC : Algae 5,600 mg/l see user defined free text

48 h EC50 : Daphnia magna (Water flea) > 100 mg/l OECD Test Guideline 202

Fatty acids, tallow, sodium salts

96 h LC50 : Danio rerio (zebra fish) OECD Test Guideline 203

Aquatic toxicity is unlikely due to low solubility.

Information given is based on data obtained from similar substances.

72 h EC50 : Pseudokirchneriella subcapitata (green algae) OECD Test Guideline

201

Aquatic toxicity is unlikely due to low solubility.

Information given is based on data obtained from similar substances.

72 h NOEC : Pseudokirchneriella subcapitata (green algae) OECD Test Guideline

201



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Aquatic toxicity is unlikely due to low solubility.

Information given is based on data obtained from similar substances.

48 h EC50 : Daphnia magna (Water flea) OECD Test Guideline 202

Aquatic toxicity is unlikely due to low solubility.

Information given is based on data obtained from similar substances.

Environmental Fate

Fatty acids, tallow, sodium salts

Biodegradability : Biodegradable OECD Test Guideline 301D

Information given is based on data obtained from similar substances.

Bioaccumulation : Bioaccumulation is unlikely.

Information given is based on data obtained from similar substances.

Additional ecological information : Environmental Hazards: Toxic to plants. Do not apply directly to water,

or to areas where surface water is present, or to intertidal areas below the mean high water mark. Run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply where weather conditions favour drift from areas treated. Do not apply where/when conditions favour runoff. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. Metribuzin is a chemical which can travel (seep or leach) through soil and can contaminate ground water which may be used as drinking water. Metribuzin has been found in ground water as a result of agricultural use. Users are advised not to apply metribuzin where the water table (ground water) is close to the surface, and where the soils are very permeable, i.e., well drained soils such as loamy sands. Your local agricultural agencies can provide further information on the type

of soil in your area and the location of ground water. See product label

for additional application instructions relating to environmental

precautions.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal methods - Product

: Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product must be disposed of on site or at an approved waste

disposal facility.

Waste disposal methods - : Container Refilling and Disposal:



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Container Refer to the product label for instructions.

Do not transport if this container is damaged or leaking.

In the event of a major spill, fire or other emergency, call 1-800-441-3637 day

or night.

Contaminated packaging : No applicable data available.

SECTION 14. TRANSPORT INFORMATION

IATA_C UN number : 3077

Proper shipping name : Environmentally hazardous substance, solid, n.o.s.

(Flumioxazin, Metribuzin)

Class : 9
Packing group : III
Labelling No. : 9MI
UN number : 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

SOLID, N.O.S. (Flumioxazin, Metribuzin)

Class : 9
Packing group : III
Labelling No. : 9

Marine pollutant : yes (Flumioxazin, Metribuzin)

Not regulated by DOT/49 CFR unless shipped in bulk package or by water.

SECTION 15. REGULATORY INFORMATION

Other regulations : This Safety Data Sheet is for a pesticide product registered by the US

Environmental Protection Agency (USEPA) and various state regulatory agencies, and is therefore also subject to certain requirements under US and

state pesticide laws, including the Federal Insecticide Fungicide and Rodenticide Act (FIFRA). These requirements differ from the classification criteria and hazard information required by OSHA for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is information

determined by USEPA, and various states.



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CAUTION!

Harmful if swallowed, inhaled or absorbed through skin. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes and clothing. Avoid breathing dust or spray mist. Remove and wash contaminated

clothing before re-use. This product is toxic to: Aquatic invertebrates

SARA 313 Regulated

Chemical(s)

: Metribuzin, Chlorimuron ethyl

PA Right to Know Regulated Chemical(s) : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances):

Metribuzin, Kaolin, Sucrose

EPA Reg. No. : 352-887

In the United States this product is regulated by the US Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

SECTION 16. OTHER INFORMATION

Trademark of E.I. du Pont de Nemours and Company.

Registered trademark of E.I. du Pont de Nemours and Company

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Contact person : DuPont Crop Protection, Wilmington, DE, 19805, Phone: 1-888-638-7668

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.

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

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