Safety Data Sheet

SECTION 1. GHS PRODUCT IDENTIFIER

1.1. Name of the product: Fiebing's Dye Reducer
1.2. Product form: Mixture of substances
1.3. Other means of identification:
1.4. Recommended use of the product and restrictions on use: For thinning alcohol/solvent based dyes
1.5. Details of the supplier:

Manufacturer: Fiebing Company, Inc.
516 South Second Street
Milwaukee WI – 53204
Phone: 414 271 5011
Emergency contact: CHEMTREC
1-800-424-9300 (US/Canada)
+01 703-527-3887 (International)

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification / risks
H225 Flam. Liq. 2
H319 Eye irritant 2A
H 336 STOT SE 3

2.2. Label elements

Hazard Pictogram:


GHS02


GHS07

Signal word: DANGER

Hazard Code:	Hazard statement
· H225:	Highly flammable liquid and vapor.
· H336:	May cause drowsiness or dizziness.
· H319:	Causes serious eye irritation

Precautionary statements (GHS – US)

PREVENTION
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.
P233 - Keep container tightly closed

P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P261 - Avoid breathing mist, spray, vapors
P264 - Wash exposed skin thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear eye protection, face protection, protective clothing, and protective gloves

RESPONSE:
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 - Call a POISON CENTER/doctor/…/if you feel unwell
P337+P313 - If eye irritation persists: Get medical advice/attention
P370+P378 - In case of fire: Use dry chemical powder, alcohol- resistant foam, carbon dioxide (CO2) for extinction.

STORAGE:
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up
DISPOSAL:
P501 - Dispose of contents/container to comply with local, state and federal regulations

ADDITIONAL HAZARDS:
PBT & vPvB: □ Substance is not classified as PBT nor as vPvB. For further details see section 12

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Mixtures

Classification:

Ingredient	CAS#	EINECS#	GHS-US Classification	REACH Registration Number	Wt%
Isopropyl alcohol (2-propanol)	67-63-0		Flam. Liq. 2A, H 225 Eye Irrit. 2A H 319 STOT SE 3 H 336	Not available	5 – 15
Ethyl alcohol	64-17-5	200-578-6	Flam. Liq. 2A, H225	Not available	85 - 90

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

First-aid measures general	: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim Calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give alcohol to drink.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Rinse with water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Give activated charcoal. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Doctor: gastric lavage.

4.2. Most important symptoms and effects, both acute and delayed: Not determined.

Symptoms/injuries after inhalation	: EXPOSURE TO HIGH CONCENTRATIONS: Coughing. Dry/sore throat. Central nervous system depression. Dizziness. Headache. Narcosis.
Symptoms/injuries after skin contact	: Dry skin.
Symptoms/injuries after eye contact	: Irritation of the eye tissue.
Symptoms/injuries after ingestion	: AFTER ABSORPTION OF HIGH QUANTITIES: Central nervous system depression. Headache. Dilation of the blood vessels. Low arterial pressure. Nausea. Vomiting. Abdominal pain. Disturbed motor response. Disturbances of consciousness. FOLLOWING SYMPTOMS MAY APPEAR LATER: Body temperature fall. Slowing respiration.
Chronic symptoms	: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Dry skin. Itching. Cracking of the skin. Skin rash/inflammation. Impaired memory.

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

Note to physicians: Symptoms may not appear immediately. If medical advice is needed, have product container or label at hand.

Specific treatments: In case of accident or if you feel unwell, seek medical advice immediately. Show the label or MSDS where possible.

SECTION 5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Water spray. Polyvalent foam. Alcohol-resistant foam. BC powder. Carbon dioxide.

Unsuitable extinguishing media: Solid water jet ineffective as extinguishing medium.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD. Highly flammable. Gas/vapour flammable with air within explosion limits. INDIRECT FIRE HAZARD. May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard.
Explosion hazard	: DIRECT EXPLOSION HAZARD. Gas/vapour explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD. may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".
Reactivity	: Upon combustion: CO and CO2 are formed. Violent to explosive reaction with (strong) oxidizers. Prolonged storage/in large quantities: may form peroxides.

5.3. Advice for firefighters:

Firefighting instructions	: Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1: For non-emergency personnel:

Protective equipment	: Gloves. Protective goggles. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus.
Emergency procedures	: Keep upwind. Mark the danger area. Consider evacuation. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosion proof appliances and lighting equipment. Keep containers closed. Wash contaminated clothes.

6.1.2: For emergency personnel:

Protective equipment	: Equip cleanup crew with proper protection. Do not breathe gas, fumes, vapor or spray.
Emergency procedures	: Stop leak if safe to do so. Ventilate area. If a major spill occurs, all personnel should be immediately evacuated and the area ventilated.

6.2. Environmental precautions

If it is possible and safe, stop or limit product release. Limit spreading of the great leakages by embanking the area. Prevent the product from penetrating drains, waters or soil. Notify respective authorities (occupational safety and hygiene, emergency brigades, environmental brigades and organs of administration).

6.3. Methods and material for containment and cleaning up

For containment	:	Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute/disperse combustible gas/vapor with water curtain. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills.
Methods for cleaning up	:	Take up liquid spill into absorbent material, e.g.: dry sand/earth/vermiculite or powdered limestone. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections: See also sections 8 and 13 of the Safety Data Sheet.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Handling:

Precautions for safe handling	:	Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle uncleaned empty containers as full ones. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Do not use compressed air for pumping over. Use spark-/explosion proof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Observe normal hygiene standards. Keep container tightly closed. Measure the concentration in the air regularly. Work under local exhaust/ventilation.
Hygiene measures	:	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible products	: Ammonia. Strong acids. Strong oxidizers.
Incompatible products	: Direct sunlight. Heat sources. Sources of ignition.
Heat and ignition sources	:KEEP SUBSTANCE AWAY FROM: heat sources, ignition sources.

Prohibitions on mixed storage	: KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) acids. (strong) bases. amines. halogens.
Storage area	: Store in a cool area. Store in a dry area. Ventilation at floor level. Fireproof storeroom. Provide for an automatic sprinkler system. Provide for a tub to collect spills. Provide the tank with earthing. May be stored under nitrogen. Meet the legal requirements.
Special rules on packaging	: SPECIAL REQUIREMENTS: closing. with pressure relief valve. dry. clean. correctly labelled, meet the legal requirements. Secure fragile packages in solid containers.
Packaging materials	: SUITABLE MATERIAL: stainless steel. monel steel. carbon steel. copper. nickel. bronze. glass. Teflon, polyethylene. polypropylene. zinc. MATERIAL TO AVOID: steel with rubber inner lining. aluminum.

7.3. Specific end use(s)

Industrial and professional use

General Hygiene: Essential hygiene rules should be observed. Clean hands with soapy water after work/break in work. Do not use contaminated clothing. Immediately remove contaminated clothing and wash before reuse. Use individual protection measures in accordance with the information contained in Section 8.

SECTION 8. EXPOSURE CONTROL AND PERSONAL PROTECTION EQUIPMENT

8.1. Control parameters

2-propanol:

OSHA-PEL: 980 mg/m3 TWA 400 ppm TWA

ACGIH-TLV: 200 ppm TWA

: 200 ppm STEL

Ethanol:

OSHA: 1000 ppm TWA, 1900 mg/m3 TWA

ACGIH: 1000 ppm STEL

8.2. Exposure controls

Appropriate engineering controls	: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.
Materials for protective clothing	: GIVE EXCELLENT RESISTANCE: butyl rubber. nitrile rubber. viton. polyethylene/ethylenevinylalcohol. GIVE GOOD RESISTANCE: neoprene. GIVE LESS RESISTANCE: PVC. neoprene/natural rubber. GIVE POOR RESISTANCE: natural rubber. polyethylene. PVA.
Hand protection	: Gloves.
Eye protection	: Safety glasses.
Skin and body protection	: Protective clothing.
Respiratory protection	: Wear gas mask with filter type A if conc. in air > exposure limit.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear liquid.
Molecular mass	: No data available
Color	: Colorless
Odor	: Alcohol odor
Odour threshold	: No data available
pH	: No data available

Relative evaporation rate (butyl acetate=1) : No data available

Relative evaporation rate (ether=1): No data available

Melting point	: -88 °C
Freezing point	: No data available
Boiling point	: 82 °C
Flash point	: 12 °C
Critical temperature	: 235 °C
Self -ignition temperature	: 399 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: 44 hPa (of IPA)
Vapor pressure at 50 °C	: 229 hPa (of IPA)
Critical pressure	: No data available
Relative vapor density at 20 °C	: No data available
Specific gravity	: 0.80

Relative density of saturated gas/air mixture: No data available

Solubility	: Soluble in water. Soluble in ethanol. Soluble in ether. Soluble in acetone. Soluble in oils/fats. Soluble in chloroform.
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content	: 6.4 lbs / Gal (768 g/L)
Other properties	: Gas/vapor heavier than air at 20°C. Clear. Volatile.

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

Upon combustion: CO and CO2 are formed. Violent to explosive reaction with (strong) oxidizers.

Prolonged storage/in large quantities: may form peroxides.

10.2. Chemical stability

The substance is stable under normal storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use. May react violently with oxidants.

10.4. Conditions to avoid:
High temperature, incompatible materials.

10.5. Incompatible materials
Strong oxidizers, Ammonia, Strong acids

10.6. Hazardous decomposition products
Carbon di oxide, Carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Likely routes of exposure: Eye, skin, ingestion
Acute health effects:

Eye: Causes severe eye irritation. Symptoms may include discomfort, redness, excess blinking and tear production with marked redness and swelling of the conjunctiva.

Skin: May cause mild skin irritation. Symptoms may include redness and drying of the skin.

Inhalation: May cause respiratory tract irritation.

Ingestion: May cause stomach distress, nausea or vomiting.

Acute toxicity:

Ingredient	LD 50	LC 50
2-propanol	Oral: 5045 mg/kg (5840 mg/kg bodyweight; Rat) Dermal: 5045 mg/kg (5840 mg/kg bodyweight; Rat)	Inhalation: 73 mg/l/4h (Rat)
Ethyl alcohol	Oral: 7060 mg/kg rat	Inhalation: 124.7 mg/L 4 H, rat

Skin corrosion/irritation: Classification criteria have not been met based on the available data.
Serious eye damage/irritation: Causes serious eye irritation
Respiratory or skin sensitization: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified
Reproductive toxicity: Not classified
Developmental: This product does not contain known reproductive or developmental toxins.
STOT – single exposure: May cause drowsiness or dizziness.
STOT – repeated exposure: Not classified exposure
Aspiration hazard: Not classified

SECTION 12. ECOLOGICAL INFORMATION

Acute/Chronic toxicity: Not considered to be harmful to aquatic life

12.1. Toxicity

Ecology - general	: Classification concerning the environment: not applicable.
Ecology - air	: TA-Luft Klasse 5.2.5.
Ecology - water	: Ground water pollutant. Not harmful to fishes (LC50(96h) >1000 mg/l). Not harmful to invertebrates (Daphnia) (EC50 (48h) > 1000 mg/l). Not harmful to algae (EC50 (72h) >1000 mg/l). Inhibition of activated sludge.

12.1.1 Ecotoxicity:

2- propanol

LC50 fishes 1	4200 mg/l (96 h; Rasbora heteromorpha; Flow-through system)
EC50 Daphnia 1	> 10000 mg/l (48 h; Daphnia magna)
LC50 fish 2	9640 mg/l (96 h; Pimephales promelas; Lethal)
EC50 Daphnia 2	13299 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	> 1000 mg/l (72 h; Scenedesmus subspicatus; Growth rate)
Threshold limit algae 2	1800 mg/l (72 h; Algae; Cell numbers)

Ecotoxicity: Ethyl alcohol

96 h LC50 Desmodesmus subspicatus: > 1000 mg/L 48 h EC50 Daphnia magna: 1:3299 mg/L

12.1.2 .Chronic Toxicity to Fish:

12.2. Persistence and degradability

2-propanol

Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	1.19 g O^2/g substance
Chemical oxygen demand (COD)	2.23 g O^2/g substance
ThOD	2.40 g O^2/g substance
BOD (% of ThOD)	0.49 % ThOD

12.3. Bioaccumulative potential

Not likely to bioconcentrate.

12.4. Mobility in soil

Surface tension: 0.021 N/m (25 Deg.C)

12.5. Results of PBT and vPvB assessment

 The substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII.

12.6. Other adverse effects.

No additional information available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery. Do not discharge into surface water. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

Additional information : LWCA (the Netherlands): KGA category 03. Hazardous waste according to Directive 2008/98/EC.

SECTION 14. TRANSPORT INFORMATION

In accordance with DOT

Transport document description	: UN1987 Alcohols N.O.S.
UN-No.(DOT)	: 1987
DOT NA no.	: UN1987
DOT Proper Shipping Name	: Alcohols N.O.S. (Ethanol/Isopropanol)
Department of Transportation (DOT) Hazard Classes	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT)	: 3 - Flammable liquids

Packing group (DOT)	: II - Medium Danger
DOT Special Provisions (49 CFR 172.102)	: IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T4 - 2.65 178.274(d)(2) Normal.....178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / (1 + a (tr - tf)) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 4b;150
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 202
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 5 L
DOT Quantity Limitations Cargo aircraft only (CFR 175.75)	: 60 L

Additional Information:

Other information	: No supplementary information available.
State during transport (ADR-RID)	: as liquid.

ADR

Transport document description (D/E)	: UN 1987 Alocohols N.O.S. (Ethyl Alcohol/Isopropanol), 3, II,
Packing group (ADR)	: II
Class (ADR)	: 3 - Flammable liquids

Hazard identification number (Kemler No.) : 33
Classification code (ADR) : F1
Danger labels (ADR) : 3 - Flammable liquids

Orange plates :

Tunnel restriction code : D/E

Transport by sea

UN-No. (IMDG) : 1987
Class (IMDG) : 3 - Flammable liquids
EmS-No. (1) : F-E
EmS-No. (2) : S-D

Air transport

UN-No.(IATA) : 1987
Class (IATA) : 3 – Flammable Liquids
Packing group (IATA) : II – Medium Danger

SECTION 15. REGULATORY INFORMATION

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

15.1 US regulations

Ingredients listed on the United States TSCA (Toxic Substances Control Act) inventory.
Listed on SARA Section 313 (Specific toxic chemical listings)

15.2 International regulations

CANADA

WHMIS Classification: Class B Division 2 - Flammable Liquid
Class D Division 2 Subdivision B - Toxic material causing other toxic effects

EU

Classification according to Regulation (EC) No. 1272/2008 [CLP]

H225 Flam. Liq. 2
H319 Eye irritant 2A
H 336 STOT SE 3

15.2.2. National regulations

No additional information available

15.3. US State regulations

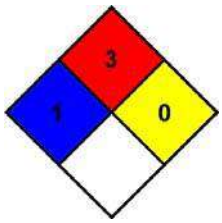
No additional information available

Global Inventories:
USA TSCA: Listed
Canada DSL/NDSL: Listed

Section 16:
Full text of H phrases

Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapor
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
NFPA fire hazard : 3 - Liquids and solids that can be ignited under almost all ambient conditions.
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS rating:
Health : 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability : 3 Serious Hazard
Reactivity : 0 Minimal Hazard
Personal Protection : H

OTHER INFORMATION: MSDS data

Date of preparation: June 17, 2021
Version: 1.0
Revision date:
Revised changes: None

Abbreviations and acronyms in the Safety Data Sheet
CAS No. Chemical Abstracts Service Number
EINECS No. European Commission Number
REACH No. Registration, Evaluation, Authorization and Restriction of Chemicals Number
TLV-TWA Threshold Limit Value
TLV-STEL Threshold Limit Value, Short Term Exposure Limit
TLV-C Ceiling exposure limit
vPvB very Persistent, very Bioaccumulative (substance)
PBT Persistent, bioaccumulative, and toxic (substance)
LD_{50} Dose that will kill 50% of the test animals
LC_{50} Concentration that will kill 50% of the test animals
STOT Specific Target Organ Toxicity
RID Regulations Concerning the International Carriage of Dangerous Goods by Rail

ADR Agreement on Dangerous Goods by Road
IMDG International Maritime Transport of Dangerous Goods
IATA International Air Transport Association

The list of applicable phrases or precautionary statements not specified in whole in sections 2-15 of the Safety Data Sheet.
None.

Advice on training for employees:
Employees who use the product should be trained on risks for health, hygiene, use of individual protection, accident preventive actions, rescue actions, etc.

Disclaimer: This MSDS is not a quality certificate for the product. All data presented in this sheet are to be taken only as a help in safe handling in transport, distribution, use and storage. Persons handling the product should be informed about risks and precautionary measures. Information in the Safety Data Sheet relates to the above mentioned products and their specified uses only. They may be obsolete or insufficient for this product used in conjunction with other materials or in different applications than those specified in the Safety Data Sheet. The user is obliged to follow all applicable standards and regulations and is also responsible for inappropriate use of information contained in this sheet or for an inappropriate use of the product. In the case of special applications evaluate exposure and develop the appropriate procedure and training programs in order to ensure safety at work.