



SAFETY DATA SHEET

1. Product and company identification

Product name Lubrizol® 560H
Product code 348240NZ
Manufacturer/Supplier CRC Industries, Inc.
Address 885 Louis Dr.
Warminster, PA 18974
US
Telephone General Information 215-674-4300
Technical Assistance 800-521-3168
Customer Service 800-272-4620
E-mail Not available.
Emergency telephone number 24-Hour Emergency (CHEMTREC) 800-424-9300

Recommended use and Limitations on use

Recommended use Fuel additive

2. Hazards identification

GHS classification

Physical hazards	Flammable liquids	Category 3
Health hazards	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 3
	Hazardous to the aquatic environment, long-term hazard	Category 3

Label elements

Symbols



Signal word

Danger

Hazard statement

Flammable liquid and vapor. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Specific treatment (see this label). IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. In case of fire: Use appropriate media for extinction.

Storage

Store in a well-ventilated place. Keep cool. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Substance or mixture Mixture

Chemical property	CAS Number	Concentration (%)
Hydroxyethylated aminoethylamide	Proprietary	50 - 60

	CAS Number	Concentration (%)
Distillates (petroleum), hydrotreated light	64742-47-8	20 - 30
Alkarylamine	Proprietary	5 - 10
Xylene	1330-20-7	1 - 3
Naphthalene	91-20-3	< 0.2

4. First aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Potential delayed effects	Burning pain and severe corrosive skin damage. Headache. Nausea, vomiting. Irritation of nose and throat. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Personal protection for first-aid responders	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.
Notes to physician	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

5. Fire-fighting measures

Extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Dry chemicals. Carbon dioxide (CO ₂).
Extinguishing media to avoid	Do not use water jet as an extinguisher, as this will spread the fire.
HAZCHEM Code Number	None.
Specific hazards during fire fighting	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special fire fighting procedures	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved.
Protection of fire-fighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Hazards from combustion products	Nitrogen oxides (NO _x). Carbon oxides. Aldehydes.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

Spill cleanup methods

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. The product is immiscible with water and will spread on the water surface.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Prevent entry into waterways, sewer, basements or confined areas.

7. Handling and storage

Handling

Precautions	Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Take precautionary measures against static discharges. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid release to the environment.
Safe handling advice	Avoid prolonged exposure. Observe good industrial hygiene practices. Use personal protection recommended in Section 8 of the SDS.
Prevention of fire and explosion	All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment.
Local and general ventilation	Explosion-proof general and local exhaust ventilation.

Storage

Suitable storage conditions	Store locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Keep container tightly closed. Store in a well-ventilated place. Refrigeration recommended. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).
Incompatible materials	Strong oxidizing agents. For further information, please refer to section 10 of the SDS.
Safe packaging materials	Store in original tightly closed container.

8. Exposure controls/personal protection

Exposure limits

New Zealand. WES. (Workplace Exposure Standards)

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	123 mg/m ³
Benzene (CAS 71-43-2)	STEL	25 ppm
	TWA	2.5 ppm
Ethylbenzene (CAS 100-41-4)	STEL	1 ppm
	TWA	543 mg/m ³
Naphthalene (CAS 91-20-3)	TWA	125 ppm
	STEL	434 mg/m ³
	TWA	100 ppm
Toluene (CAS 108-88-3)	STEL	79 mg/m ³
	TWA	15 ppm
	TWA	52 mg/m ³
Xylene (CAS 1330-20-7)	TWA	10 ppm
	TWA	188 mg/m ³
	TWA	50 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm
Benzene (CAS 71-43-2)	STEL	2.5 ppm
	TWA	0.5 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm
Naphthalene (CAS 91-20-3)	TWA	10 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm
Xylene (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	125 mg/m ³
		25 ppm
Benzene (CAS 71-43-2)	TWA	3.25 mg/m ³
		1 ppm
Ethylbenzene (CAS 100-41-4)	STEL	552 mg/m ³
	TWA	125 ppm
Toluene (CAS 108-88-3)	STEL	441 mg/m ³
	TWA	100 ppm
Xylene (CAS 1330-20-7)	STEL	384 mg/m ³
	TWA	100 ppm
Xylene (CAS 1330-20-7)	STEL	191 mg/m ³
	TWA	50 ppm
Xylene (CAS 1330-20-7)	STEL	441 mg/m ³
	TWA	100 ppm
Xylene (CAS 1330-20-7)	STEL	220 mg/m ³
	TWA	50 ppm

Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	123 mg/m ³
		25 ppm
Benzene (CAS 71-43-2)	TWA	3.2 mg/m ³
		1 ppm
Ethylbenzene (CAS 100-41-4)	STEL	543 mg/m ³
	TWA	125 ppm
Naphthalene (CAS 91-20-3)	STEL	434 mg/m ³
	TWA	100 ppm
Toluene (CAS 108-88-3)	STEL	79 mg/m ³
	TWA	15 ppm
Xylene (CAS 1330-20-7)	STEL	52 mg/m ³
	TWA	10 ppm
Xylene (CAS 1330-20-7)	STEL	574 mg/m ³
	TWA	150 ppm
Xylene (CAS 1330-20-7)	STEL	191 mg/m ³
	TWA	50 ppm
Xylene (CAS 1330-20-7)	STEL	655 mg/m ³
	TWA	150 ppm
Xylene (CAS 1330-20-7)	STEL	350 mg/m ³
	TWA	80 ppm

Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	123 mg/m ³
		25 ppm
Benzene (CAS 71-43-2)	TWA	3.2 mg/m ³
		1 ppm
Ethylbenzene (CAS 100-41-4)	STEL	543 mg/m ³
	TWA	125 ppm
Ethylbenzene (CAS 100-41-4)	STEL	434 mg/m ³
	TWA	100 ppm

Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

Components	Type	Value
Naphthalene (CAS 91-20-3)	STEL	100 ppm
		79 mg/m ³
	TWA	15 ppm
Toluene (CAS 108-88-3)	STEL	52 mg/m ³
		10 ppm
	TWA	574 mg/m ³
Xylene (CAS 1330-20-7)	STEL	150 ppm
		191 mg/m ³
	TWA	50 ppm
		655 mg/m ³
		150 ppm
		350 mg/m ³
		80 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Benzene (CAS 71-43-2)	25 µg/g	S-Phenylmercapturic acid	Creatinine in urine	*
Ethylbenzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
			Urine	*
	0.03 mg/l	Toluene	Blood	*
Xylene (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

New Zealand WES: Skin designation

Benzene (CAS 71-43-2)

Skin absorption can be significant.

Toluene (CAS 108-88-3)

Skin absorption can be significant.

US ACGIH Threshold Limit Values: Skin designation

Benzene (CAS 71-43-2)

Can be absorbed through the skin.

Naphthalene (CAS 91-20-3)

Can be absorbed through the skin.

Engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Personal protective equipment

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Hand protection

Wear protective gloves such as neoprene or nitrile.

Skin protection

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield.

Radioactive or thermal hazards

Follow standard monitoring procedures.

Hygiene measures

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form	Liquid.
Color	Dark amber.
Odor	Mild hydrocarbon.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-46.8 °F (-43.8 °C) estimated
Boiling point, initial boiling point, and boiling range	278.6 °F (137 °C)
Flash point	140 °F (60 °C) Pensky-Martens Closed Cup
Auto-ignition temperature	410 °F (210 °C) estimated
Flammability (solid, gas)	Not available.
Flammability limit - lower (%)	0.5 % estimated
Flammability limit - upper (%)	6.8 % estimated
Explosive limit - lower (%)	0.5 %
Explosive limit - upper (%)	6.8 %
Vapor pressure	0.5 hPa estimated
Vapor density	Not available.
Evaporation rate	Not available.
Relative density	0.92
Density	Not available.
Solubility(ies)	
Solubility (water)	Insoluble.
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Viscosity	9.3 cSt (212 °F (100 °C)) 70 cSt (104 °F (40 °C))
Pour point	-14.8 °F (-26 °C)
Percent volatile	100 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Stability	Material is stable under normal conditions.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents. Halogens.
Hazardous decomposition products	Nitrogen oxides (NOx). Carbon oxides. Aldehydes.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.

11. Toxicological information

Acute toxicity May cause an allergic skin reaction.

Product	Species	Test Results
Lubrizol® 560H		
Acute		
<i>Oral</i>		
LD50	Rat	15720.8115 mg/kg, 2.5 hours estimated

* Estimates for product may be based on additional component data not shown.

Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.

Eye Contact

Lubrizol® 560H 0, Severe irritant. Risk of irreversible da

Ingestion

Lubrizol® 560H 0, Swallowing this material causes severe i

Inhalation

Lubrizol® 560H 0, Nose, throat and lung irritant. Exposure

Skin contact

Lubrizol® 560H

0, Corrosive to the skin. Prolonged or repeated exposure may cause severe skin damage.

Symptoms

Burning pain and severe corrosive skin damage. Headache. Nausea, vomiting. Irritation of nose and throat. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Skin sensitizer

May cause an allergic skin reaction.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

Risk of cancer cannot be excluded with prolonged exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

Benzene (CAS 71-43-2)

1 Carcinogenic to humans.

Ethylbenzene (CAS 100-41-4)

2B Possibly carcinogenic to humans.

Naphthalene (CAS 91-20-3)

2B Possibly carcinogenic to humans.

Toluene (CAS 108-88-3)

3 Not classifiable as to carcinogenicity to humans.

Xylene (CAS 1330-20-7)

3 Not classifiable as to carcinogenicity to humans.

Toxic to reproduction

Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals.

Specific target organ toxicity - single exposure

Not classified.

Specific target organ toxicity - repeated exposure

Not classified.

Chronic effects

Lubrizol® 560H

Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

0, Repeated overexposure to petroleum naphth

Relevant negative data

Not available.

12. Ecological information**Ecotoxicological data**

Product		Species	Test Results
Lubrizol® 560H	EC50	Bacteria	10 - 100 ppm
	LC50	Fish (freshwater)	10 - 100 mg/l
	Aquatic		
Fish	LC50	Fish	466.0381 mg/l, 96 hours estimated
<i>Acute</i>			
Crustacea	EC50	Daphnia	491.4654 mg/l, 48 hours estimated
Components		Species	Test Results
1,2,4-Trimethylbenzene (CAS 95-63-6)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	7.19 - 8.28 mg/l, 96 hours
Benzene (CAS 71-43-2)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	8.76 - 15.6 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	7.2 - 11.7 mg/l, 96 hours
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)			
Aquatic			
<i>Acute</i>			
Fish	LC50	Fathead minnow (Pimephales promelas)	45 mg/l, 96 hours
Ethylbenzene (CAS 100-41-4)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	2.1 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	12.1 mg/l, 96 hours

Components	Species		Test Results
Naphthalene (CAS 91-20-3)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	1.09 - 3.4 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	1.6 mg/l, 96 hours
Toluene (CAS 108-88-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon,silver salmon (Oncorhynchus kisutch)	8.11 mg/l, 96 hours
Xylene (CAS 1330-20-7)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	9.5 - 19.2 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Ecotoxicity	Harmful to aquatic life with long lasting effects.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulation	No data available.
Partition coefficient n-octanol/water (log Kow)	
Benzene	2.13
Ethylbenzene	3.15
Naphthalene	3.3
Toluene	2.73
Xylene	3.12 - 3.2
Bioconcentration factor (BCF)	
Xylene	15
Mobility	The product is immiscible with water and will spread on the water surface.
Other hazardous effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

14. Transport information

DOT	
Transport hazard class(es)	
Class	UN2924
Packaging bulk	Flammable liquids, corrosive, n.o.s. (Hydroxyethylated aminoethylamide, Distillates (petroleum), hydrotreated light)
UN number	3
8	
Packaging exceptions	III
Read safety instructions, SDS and emergency procedures before handling.	
Transport hazard class(es)	
Subsidiary risk	3, 8
B1, IB3, T7, TP1, TP28	
Special provisions	150
Packaging non bulk	203
Special precautions for user	242
Packing group	Not applicable.
UN proper shipping name	Not available.

IATA

UN number	UN2924
UN proper shipping name	Flammable liquid, corrosive, n.o.s. (Hydroxyethylated aminoethylamide, Distillates (petroleum), hydrotreated light)
Transport hazard class(es)	
Class	3
Subsidiary risk	8
Packing group	III
Environmental hazards	No.
ERG Code	3C
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

IMDG

UN number	UN2924
UN proper shipping name	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Hydroxyethylated aminoethylamide, Distillates (petroleum), hydrotreated light)
Transport hazard class(es)	
Class	3
Subsidiary risk	8
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-C
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

DOT



IATA; IMDG



15. Regulatory information

Applicable regulations

New Zealand Inventory of Chemicals (NZIoC): Registration status

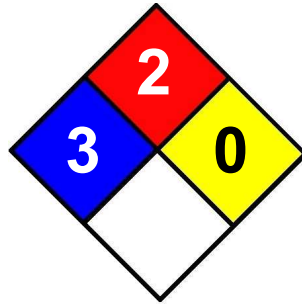
1,2,4-Trimethylbenzene (CAS 95-63-6)	HSNO Approved
Benzene (CAS 71-43-2)	HSNO Approved
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	May be used as a single component chemical under an appropriate group standard
Ethylbenzene (CAS 100-41-4)	HSNO Approved
Naphthalene (CAS 91-20-3)	HSNO Approved
Toluene (CAS 108-88-3)	HSNO Approved
Xylene (CAS 1330-20-7)	HSNO Approved

16. Other information

References

Not available.

NFPA ratings



Issued by

Not available.

Prepared by

Not available.

Disclaimer

CRC cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Issue date

12-22-2014