

SAFETY DATA SHEET K GARD NF

According to EC Regulation 1907/2006/EC - revision 2015/830

Revision No. 3.1

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SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product identifier

Product Name K GARD NF
Product Code 11000881X1 (CLP)

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

Recommended use
Diesel fuel enhancer.

1.3. Details of the supplier of the safety data sheet

NCH UK & Ireland, NCH House, Springvale Avenue, Bilston, WV14 0QL Tel (UK): 01902 510200, Tel (Ireland): 042 939 5502
E-mail address technical_uk@nch.com
Website address www.ncheurope.com

1.4. Emergency telephone number

01902 510331 (available during Office Hours)

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP/GHS) and its adaptations

Acute toxicity: Category 4
Aspiration hazard: Category 1
Carcinogenicity: Category 2
Aquatic chronic: Category 2
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H351 - Suspected of causing cancer
H411 - Toxic to aquatic life with long lasting effects
EUH066 - Repeated exposure may cause skin dryness or cracking.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP/GHS)

Contains HYDROCARBONS, C12-C15, ALKANES & 2-ETHYLHEXYL NITRATE & SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC & NAPHTHALENE.

Hazard pictograms



Signal word DANGER

Hazard Statements

H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H351 - Suspected of causing cancer
H411 - Toxic to aquatic life with long lasting effects

EU classification for GHS template

EUH066 - Repeated exposure may cause skin dryness or cracking.

Precautionary Statements

P312 - Call a POISON CENTER or doctor if you feel unwell
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
P331 - Do NOT induce vomiting
P273 - Avoid release to the environment
P391 - Collect spillage
P280 - Wear protective gloves/protective clothing/eye protection.
For industrial and institutional use only.
Keep out of reach of children.

2.3. Other hazards

No additional hazards identified.

The components in this formulation do not meet the criteria for classification as PBT or vPvB. As defined under the regulation EC 1907/2006.

SECTION 3. COMPOSITION / INFORMATION OF INGREDIENTS**3.2 Mixture**

Component	CAS-No.	EC No.	EU - REACH reg number	Weight percent	EU - GHS/CLP Classification	Notes
HYDROCARBONS, C12-C15, ALKANES	64742-47-8	265-149-8	01-2119456620-43	25 - < 50	Asp. Tox. 1 (H304)	
2-ETHYLHEXYL NITRATE	27247-96-7	248-363-6	01-2119539586-27	25 - < 50	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Aquatic Chronic 2 (H411) (EUH0044) (EUH066)	
SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC	64742-94-5	265-198-5	01-2119510128-50	20 - < 25	Asp. Tox. 1 (H304)	
NAPHTHALENE	91-20-3	202-049-5	01-2119561346-37	1 - < 3	Acute Tox. 4 (H302) Carc. 2 (H351) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	
1,2,4-TRIMETHYLBENZENE	95-63-6	202-436-9	01-2119472135-42	1 - < 3	Skin Irrit. 2 (H315) Flam. Liq. 3 (H226) STOT SE 3 (H335) Acute Tox. 4 (H332) Eye Irrit. 2 (H319) Aquatic Chronic 2 (H411)	P
ALKYL ALCOHOL	104-76-7	203-234-3	01-2119487289-20	1 - < 3	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	

For any H statements mentioned in this section, see the full text in section 16.

EU Notes

Note P - The classification as a carcinogen or mutagen does not apply as the substance contains less than 0.1% w/w benzene

SECTION 4. FIRST AID MEASURES**4.1. Description of first aid measures**General advice

If symptoms persist, call a physician. Avoid breathing vapours or mists.

Eye Contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician immediately.

Skin Contact

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth with water. If swallowed, do not induce vomiting - seek medical advice.

Inhalation

If problems with breathing occur, move to fresh air. If symptoms persist, call a physician.

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

No information available.

Eye contact

May cause irritation as itching and redness.

Skin contact

Prolonged contact will dry and defat the skin and may cause irritation such as itching and redness.

Ingestion

Aspiration into lungs on ingestion or vomiting may cause broncopneumonia or pulmonary oedema which can be fatal.

Inhalation

Inhalation of mists may result in irritation to the respiratory tract. May cause headaches, dizziness, drowsiness and nausea.

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

Notes to physician

Treat symptomatically. Aspiration hazard if swallowed - can enter lungs and cause damage.

SECTION 5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use: Dry powder. Alcohol-resistant foam. Water spray.

Extinguishing media which must not be used for safety reasons

Water jet.

5.2. Special hazards arising from the substance or mixture

When exposed to high temperatures, the preparation may release dangerous decomposition products such as carbon monoxide and dioxide, smoke and/or nitrogen oxide.

Containers may explode when heated. May undergo explosive decomposition at elevated pressures when heated or ignited. Possibility of harm to the aquatic life. Avoid release into the environment.

5.3. Advice for firefighters

Firefighters should wear a self-contained breathing apparatus and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes, and clothing. Use personal protective equipment. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions. See section 8. Remove all sources of ignition. Ventilate the area. Evacuate personnel to safe areas.

6.2. Environmental precautions

Avoid release of neat product into surface water and sanitary sewage system. Prevent further leakage or spillage if safe to do so. Insoluble in water and hence will float on the surface. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up

Methods for Containment

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Remove all sources of ignition.

Methods for Cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

Refer to sections 7, 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid breathing vapours or mists. Do not eat, drink or smoke when using this product. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Never siphon by mouth. Ensure adequate ventilation.

Use of secondary containment is recommended i.e impermeable floors / surfaces which will help contain any spills.

7.2. Conditions for safe storage, including any incompatibilities

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Store in accordance with local regulations.

7.3. Specific end use(s)

No information available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

For substances. If vapours, fumes or mists are generated, their concentration in the workplace area should be kept to the lowest reasonable level.

Component	European Union	The United Kingdom	France	Germany	Austria
HYDROCARBONS, C12-C15, ALKANES				Peak: 40ppm Peak: 280mg/m ³ TWA: 20ppm TWA: 140mg/m ³	

NAPHTHALENE			TWA: 10 ppm TWA: 50 mg/m ³	AGW: 0.1ppm AGW: 0.5mg/m ³ Skin	Skin TWA: 10 ppm TWA: 50 mg/m ³
1,2,4-TRIMETHYLBENZENE		STEL: 75 ppm STEL: 375 mg/m ³ TWA: 25 ppm TWA: 125 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³ TWA: 1000 mg/m ³ STEL: 50 ppm STEL: 250 mg/m ³ STEL: 1500 mg/m ³	AGW: 20ppm AGW: 100mg/m ³ Peak: 40ppm Peak: 200mg/m ³ TWA: 20ppm TWA: 100mg/m ³ BGW: 400mg/g	STEL: 30 ppm STEL: 150 mg/m ³ TWA: 20 ppm TWA: 100 mg/m ³
ALKYL ALCOHOL		STEL: 150 ppm STEL: 813 mg/m ³ TWA: 50 ppm TWA: 271 mg/m ³	TWA: 50 ppm TWA: 270 mg/m ³ Skin	AGW: 20ppm AGW: 110mg/m ³ Peak: 10ppm Peak: 54mg/m ³ TWA: 10ppm TWA: 54mg/m ³	Skin STEL: 100 ppm STEL: 540 mg/m ³ TWA: 50 ppm TWA: 270 mg/m ³

Component	Spain	Portugal	Italy	The Netherlands	Switzerland
NAPHTHALENE	Skin STEL: 15 ppm STEL: 80 mg/m ³ TWA: 10 ppm TWA: 53 mg/m ³	STEL: 15 ppm TWA: 10 ppm TWA: 50 mg/m ³ Skin		STEL: 80 mg/m ³ TWA: 50 mg/m ³	Skin TWA: 10 ppm TWA: 50 mg/m ³
1,2,4-TRIMETHYLBENZENE	TWA: 20 ppm TWA: 100 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³ TWA: 25 ppm	TWA: 20 ppm TWA: 100 mg/m ³	STEL: 200 mg/m ³ TWA: 100 mg/m ³	STEL: 40 ppm STEL: 200 mg/m ³ TWA: 20 ppm TWA: 100 mg/m ³
ALKYL ALCOHOL	Skin TWA: 50 ppm TWA: 271 mg/m ³	TWA: 50 ppm Skin			Skin STEL: 20 ppm STEL: 110 mg/m ³ TWA: 20 ppm TWA: 110 mg/m ³ TWA: 50 ppm TWA: 270 mg/m ³

Component	Denmark	Finland	Norway	Sweden	Czech
NAPHTHALENE	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 1 ppm TWA: 5 mg/m ³ STEL: 2 ppm STEL: 10 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ TWA: 0.04 mg/m ³	10 ppm 50 mg/m ³ 15 ppm 80 mg/m ³	PEL: 50mg/m ³ NPK-P: 100mg/m ³
1,2,4-TRIMETHYLBENZENE	TWA: 20 ppm TWA: 100 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³	25 ppm 120 mg/m ³ 35 ppm 170 mg/m ³	PEL: 100mg/m ³ NPK-P: 250mg/m ³
ALKYL ALCOHOL		TWA: 1 ppm TWA: 5.4 mg/m ³	TWA: 25 ppm TWA: 135 mg/m ³		

Component	Poland	Ireland
2-ETHYLHEXYL NITRATE	NDSch: 7 mg/m ³ NDS: 3.5 mg/m ³	
NAPHTHALENE	NDSch: 50 mg/m ³ NDS: 20 mg/m ³ NDS: 0.002 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 15 ppm STEL: 75 mg/m ³
1,2,4-TRIMETHYLBENZENE	NDSch: 170 mg/m ³ NDS: 100 mg/m ³	TWA: 20 ppm TWA: 100 mg/m ³ STEL: 60 ppm STEL: 300 mg/m ³ Skin
ALKYL ALCOHOL	NDSch: 320 mg/m ³ NDS: 160 mg/m ³ NDS: 220 mg/m ³	

8.2. Exposure controls

Engineering Measures

Local ventilation is suggested to control exposure from operations that can generate significant levels of vapour, mist or fumes.

Personal Protective Equipment

Use personal protection equipment as per Directive 89/686/EEC.

Respiratory Protection

In case of inadequate ventilation wear respiratory protection. Conforming to EN 141 (organic vapours). Do not breathe vapours or spray mist.

Hand Protection

Wear suitable protective gloves conforming to EN 374. Type of gloves suggested: Solvent-resistant gloves (butyl-rubber). Fluorinated rubber. Polyvinyl alcohol. Minimum breakthrough time of the glove material (protective index 4, breakthrough time: >120 min). For break through times, refer to glove manufacturers recommendations.

Eye Protection

Safety glasses if the method of use presents the likelihood of eye contact. Approved to EN 166.

General hygiene considerations

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practise. Wash hands before breaks and at the end of workday.

Environmental exposure controls

Local authorities should be advised if significant spillages cannot be contained.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Information below relates to typical values and does not constitute a specification.

Appearance	Amber	Specific Gravity	0.88
Physical State	Liquid	Solubility	Insoluble in water
Odour	Petroleum distillates	Autoignition Temperature	No information available.
pH	Not applicable.	Viscosity	< 7cst (40°C)
Melting Point/Range	- 20	Explosive properties	No information available
Boiling Point/Range	250 °C	Oxidizing Properties	No information available.
Flash Point	74 °C	VOC Content (%)	65.5 %
Method	Closed cup		
Evaporation Rate	No information available.		
Flammability Limits in Air %	No information available.		
Vapour Pressure	No information available.		
Vapor Density	No information available.		

9.2. Other information

No other information available

SECTION 10. STABILITY AND REACTIVITY**10.1. Reactivity**

Not considered as highly reactive. See further information below.

10.2. Chemical stability

Stable under recommended storage conditions. Heating may cause an explosion.

10.3. Possibility of hazardous reactions

The mixture itself will not dangerously react or polymerise to create hazardous conditions in normal use.

10.4. Conditions to avoid

Heat, flames, and sparks.

10.5. Incompatible materials

Strong oxidising agents. Reducing agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products

None under normal storage conditions and use.

When exposed to high temperatures, the preparation may release dangerous decomposition products such as carbon monoxide and dioxide, smoke and/or nitrogen oxide.

SECTION 11. TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**Product Information

The product itself has not been tested.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
HYDROCARBONS, C12-C15, ALKANES	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
2-ETHYLHEXYL NITRATE	300 - 2000 mg/kg (Rat)	= 1100 mg/kg (Rabbit)	> 14 mg/L (Rat) 4 h
SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC	> 5000 mg/kg (Rat)	> 2 mL/kg (Rabbit)	> 590 mg/m ³ (Rat) 4 h
NAPHTHALENE	= 1110 mg/kg (Rat)	= 1120 mg/kg (Rabbit)	> 340 mg/m ³ (Rat) 1 h
1,2,4-TRIMETHYLBENZENE	= 3280 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 18 mg/m ³ (Rat) 4 h
ALKYL ALCOHOL	1516 - 2774 mg/kg (Rat) = 1480 mg/kg (Rat) > 5000 mg/kg (Rat) > 8300 mg/kg (Rat)	= 1980 mg/kg (Rabbit) > 1600 mg/kg (Rat) > 3160 mg/kg (Rabbit)	= 0.237 mg/L (Rat) 4 h

Sensitisation

No information available.

Skin contact

Prolonged contact will dry and defat the skin and may cause irritation such as itching and redness.

Inhalation

Inhalation of mists may result in irritation to the respiratory tract. May cause headaches, dizziness, drowsiness and nausea.

Ingestion

Aspiration into lungs on ingestion or vomiting may cause broncopneumonia or pulmonary oedema which can be fatal.

Eye contact

May cause irritation as itching and redness.

Carcinogenicity

Contains substance(s) with limited evidence of carcinogenic effects.

Mutagenic Effects

There are no known mutagenic substances in this product.

Reproductive Effects

There are no known substances in this product with effects on reproduction.

SECTION 12. ECOLOGICAL INFORMATION**12.1. Toxicity**Product Information

The product itself has not been tested.

Ecotoxicity effects

Contains substance(s) known to be hazardous to the aquatic environment.

Component	Toxicity to Fish	Water Flea	Toxicity to Algae
HYDROCARBONS, C12-C15, ALKANES	LC50 = 45 mg/L Pimephales promelas 96 h LC50 = 2.2 mg/L Lepomis macrochirus 96 h LC50 = 2.4 mg/L Oncorhynchus mykiss 96 h		
SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC	LC50 = 19 mg/L Pimephales promelas 96 h LC50 = 2.34 mg/L Oncorhynchus mykiss 96 h LC50 = 1740 mg/L Lepomis macrochirus 96 h LC50 = 45 mg/L Pimephales promelas 96 h LC50 = 41 mg/L Pimephales promelas 96 h	0.95: 48 h Daphnia magna mg/L EC50	
NAPHTHALENE	LC50 5.74 - 6.44 mg/L Pimephales promelas 96 h LC50 = 1.6 mg/L Oncorhynchus mykiss 96 h LC50 0.91 - 2.82 mg/L Oncorhynchus mykiss 96 h LC50 = 1.99 mg/L Pimephales promelas 96 h LC50 = 31.0265 mg/L Lepomis macrochirus 96 h	2.16: 48 h Daphnia magna mg/L LC50 1.96: 48 h Daphnia magna mg/L EC50 Flow through 1.09 - 3.4: 48 h Daphnia magna mg/L EC50 Static	
1,2,4-TRIMETHYLBENZENE	LC50 7.19-8.28 mg/L Pimephales promelas 96 h LC50 = 7.72 mg/L Pimephales promelas 96 h	6.14: 48 h Daphnia magna mg/L EC50	
ALKYL ALCOHOL	LC50 4.78 - 8.85 mg/L Oncorhynchus mykiss 96 h LC50 3.6 - 5.1 mg/L Lepomis macrochirus 96 h LC50 32 - 37 mg/L Oncorhynchus mykiss 96 h LC50 > 7.5 mg/L Oncorhynchus mykiss 96 h LC50 27 - 29.5 mg/L Pimephales promelas 96 h LC50 = 29.7 mg/L Pimephales promelas 96 h LC50 10.0 - 33.0 mg/L Lepomis macrochirus 96 h LC50 = 28.7 mg/L Lepomis macrochirus 96 h LC50 0.056 - 7.5 mg/L Oncorhynchus mykiss 96 h	39: 48 h Daphnia magna mg/L EC50 31.8: 48 h Daphnia magna mg/L EC50 320: 48 h Daphnia magna mg/L EC50 4.78 - 8.87: 48 h Daphnia magna mg/L EC50 Static 8.5: 48 h Daphnia magna mg/L EC50	EC50 = 2.7 mg/L Pseudokirchneriella subcapitata 96 h EC50 = 11.5 mg/L Desmodesmus subspicatus 72 h

12.2. Persistence and degradability

Inherently biodegradable to OECD 302 A-C. Ecotoxicological properties are substance specific, i.e. bioaccumulation, persistence and degradability. The information is given, where available and appropriate, for substance(s) of the mixture.

12.3. Bioaccumulative potential

Bioaccumulation unlikely due to the high volatility of the product. Component information below. Not likely to bioaccumulate.

Component	log Pow
2-ETHYLHEXYL NITRATE	4.14
SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC	6.1
NAPHTHALENE	3.3
1,2,4-TRIMETHYLBENZENE	3.63
ALKYL ALCOHOL	3.1

12.4. Mobility in soil

The product is insoluble and floats on water. This preparation is volatile and will readily evaporate to the air if released into the environment.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB. As defined under the regulation EC 1907/2006.

12.6. Other adverse effects

No data available.

SECTION 13. DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**Waste from Residues / Unused Products

Dispose of in accordance with local regulations.

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal. Recycle according to official regulations. For empty containers - Do not weld, solder, braze, grind etc.. Do not expose to heat, flames, sparks or other sources of ignition.

EWC waste disposal No

The following EWC/ AVV waste codes may be applicable:

13 07 01* Fuel oil and diesel

Other Information

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific

SECTION 14. TRANSPORT INFORMATION**14.1, 14.2, 14.3, 14.4.**

IMDG/IMO

UN-No	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard Class	9
Packing Group	III
EmS	F-A, S-F

ADR / RID

UN-No	UN3082
Hazard Class	9
Packing Group	III
Classification Code	M6
Limited Quantity	5 L
Transport Cat. (Tunnel Restriction Code)	3 (E)

IATA/ICAO

UN-No	UN3082
Hazard Class	9
Packing Group	III
ERG Code	9L

14.5. Environmental hazards

The mixture is environmentally hazardous for transport

Product is a marine pollutant according to the criteria set by IMDG/IMO

14.6. Special precautions for user

No special precautions.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Packaged product, not typically transported in IBC's.

Additional information

The above information is based on latest transport regulations i.e. ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport.

SECTION 15. REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

This mixture was classified in compliance with EC Regulation 1272/2008 (CLP) and its adaptations.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for this mixture by the supplier

SECTION 16. OTHER INFORMATION

Text of H statements mentioned in Section 3

H226 - Flammable liquid and vapour. H302 - Harmful if swallowed. H304 - May be fatal if swallowed and enters airways. H312 - Harmful in contact with skin. H315 - Causes skin irritation. H319 - Causes serious eye irritation. H332 - Harmful if inhaled. H335 - May cause respiratory irritation. H351 - Suspected of causing cancer. H400 - Very toxic to aquatic life. H410 - Very toxic to aquatic life with long lasting effects. H411 - Toxic to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

On the basis of test data. H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled. H304 - May be fatal if swallowed and enters airways. Calculation method. H351 - Suspected of causing cancer. Summation method. H411 - Toxic to aquatic life with long lasting effects.

Prepared By Austen Pimm

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Revision summary

CLP update. SDS sections updated 2 3 11 16

Abbreviations

REACH: Registration Evaluation Authorisation Restriction of Chemicals

EU: European Union

EC: European community

EEC: European Economic Community

UN: United Nations

CAS: Chemical Abstracts Service

PBT: Persistent Bioaccumulative Toxic

vPvB: very Persistent very Bioaccumulative

LC50: Lethal concentration, 50 percent

LD50 : Lethal dose, 50 percent

EC50: Effective concentration, 50 percent

LogPow: LogP octanol/water

VwVwS: Verwaltungsvorschrift wassergefährdende Stoffe (Administrative order relating to substances hazardous to water - Germany)

WGK: Wassergefährdungskategorie (Water Hazard Class - Germany).

AVV: Abfallverzeichnis-Verordnung (Waste Code - Germany)

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route (European agreement governing the international carriage of dangerous goods by road)

IMDG: International Maritime Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International carriage of Dangerous goods by rail)

EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods

ERG: Emergency Response Guidebook

IUCLID / RTECS International Uniform Chemical Information Database / Registry of Toxic Effects of Chemical Substances

GHS: Globally Harmonised System of classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

VOC: Volatile Organic Chemical

w/w: weight for weight

DMSO: Dimethyl sulphoxide

OECD: Organization for Economic Cooperation and Development

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

Further Information

Component test results displayed in sections 11 and 12 are typically supplied by Chemadvisor and assembled from publicly available literature sources e.g. IUCLID / RTECS

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations

Disclaimer

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet