

## Complex fertilizer NPK 14-14-14+11.5S

Revision 2, June 2015

<b>1. COMPANY AND PRODUCT / MIXTURE IDENTIFICATIONS</b>	
<b>1.1 Product identifier</b>	
Trade name:	NPK 14-14-14
Other names:	Complex mineral fertilizer
Chemical name:	Not applicable
INDEX number as listed in Annex VI of CLP:	Not listed
CAS number:	Not applicable - mixture
<b>1.2 Relevant identified uses of the mixture and uses advised against</b>	
Identified uses:	<p>Industrial distribution.            Industrial USE to formulate fertilizers product mixtures.            Professional formulation of fertilizer products.            Professional USE as fertilizer at farms – loading and spreading (includes soil conditioning).            Professional USE as fertilizer in Greenhouse (e.g. Fertigation, includes pH control or fertilizer solution with acid).            Professional USE as liquid fertilizer in open field (e.g. Fertigation).            Professional USE as fertilizer – maintenance of equipment.</p>
Uses advised against:	Other non-specified industry, due to lack of related experience or data, the supplier cannot approve this use.
<b>1.3 Details of the supplier of the safety data sheet</b>	
Importer:	AGROPOLYCHIM JSC BULGARIA Industrial zone 9160, Devnya Tel: +359 / 519 97 419 URL website: <a href="http://www.agropolychim.bg">www.agropolychim.bg</a>
Person responsible for Safety Data Sheet (with e-mail address)	eng. Miroslava Tsvetkova, eng. Chemical processes – Production Department Agropolychim JSC, 9160 Devnia, Bulgaria Tel.: +359 / 519 97 419, 553 Email: <a href="mailto:vasileva@agropolychim.bg">vasileva@agropolychim.bg</a>
<b>1.4 Emergency telephone number</b>	

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Emergency phone number in the company:	Tel: + 359 / 519 97 530 (24 hours / day)
Emergency phone number in Bulgaria:	+ 359 / 2 91 54 346 (24 hours / day), Toxicology Clinique, Medical Institute, "PIROGOV", Sofia

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the mixture:

Classification in accordance with Regulation 1272/2008 (CLP)

Classification:	Not classified
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#### 2.2 Label elements

Labelling in accordance with Regulation 1272/2008 (CLP)

Hazard pictogram(s):	No pictogram (s)- none classified.
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Signal word	No signal word
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Risk statement (s):	Not defined
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Precautionary statement(s):	Not defined
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#### 2.3 Other hazards

PBT/vPvB criteria:	None applicable
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Other hazards which do not results in classification	Product forms slippery surface when combined with water.
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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

*Type: multi compositional mixture, complex mineral fertilizer, contained fertigation elements Nitrogen, Phosphorous and Potassium in a different combination that determined different grades of NPK, as well as micro element Sulphur.*

Chemical name/formula	%	CAS / EC No's	ID № / App 6 CLP	Classification under Regulation 1272/2008/EC	Registration No
AMMONIUM CHLORIDE, NH <sub>4</sub> Cl	≤ 1	12125-02-9/ 235-186-4:	017-014-00-8	Acute toxicity, cat 4: H302 ; Eye irritant, cat. 2: H319	01-2119489385-24-0036
DIAMMONIUM HYDROGEN ORTHOPOSPHATE, DAP,(NH <sub>4</sub> ) <sub>2</sub> HPO <sub>4</sub>	25	7783-28 -0/ 231 -987 -8	--	--	01-2119490974-22-0016

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AMMONIUM DIHYDROGEN ORTHOPOSPHATE, MAP, NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub>	15	7722-76 -1/ 231 -764 -5	--	--	01-2119488166-29-0020
DIAAMONIUM SULPHATE, (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	48	7783-20-2/ 231-984-1	--	--	01-2119455044-46-0172
КАЛИЕВ ХЛОРИД, KCL	10	7447-40-7/ 231-211-8	--	--	Exemption under article 2(7) (b)
КАЛЦИЕВ КАРБОНАТ, CaCO <sub>3</sub>	≤ 2	471-34-1/ 207-439-9	--	--	Exemption under article 2(7) (b)

For the full text of phrases, mentioned in this Section, see Section 16.  
Professional exposure limits are described in Section 8.

**4. FIRST-AID MEASURES**

**4.1 Description of first aid measures**

Eye contact:	Immediately wash eyes with plenty of running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses if present and easy to do. Seek medical advice if irritation develops and persists.
Skin contact:	Wash affected skin area with plenty of water and soap for at least 15 minutes thoroughly while removing contaminated clothing and shoes. Seek medical advice if irritation develops and persists
Ingestion:	Seek medical advice if the victim feels unwell. Wash out mouth with plenty of water and give plenty of water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical advice if symptoms occur.
Dust inhalation:	Remove the victim from exposure into fresh air immediately if adverse effects (e.g. dizziness, drowsiness or respiratory irritation) occur. Leave the person at leisure and seek medical advice. It's advisable the distressed person to be watched over for 48 hours period.

**4.2 Most important symptoms and effects, both acute and delayed**

Skin contact	No known significant effects or critical hazards.
Eye contact	No known significant effects or critical hazards.
Ingestion:	No known significant effects or critical hazards.

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Inhalation	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
<b>4.3 Indication of any immediate medical attention and special treatment needed</b>	
No defined.	
<b>5. FIRE-FIGHTING MEASURES</b>	
<b>5.1 Extinguishing media</b>	
Suitable:	Plenty of water.
Unsuitable:	Dry chemical; Foam. Do not smother with steam or sand.
<b>5.2 Special hazards arising from the substance or mixture</b>	
Potential explosion hazard when heated under strong confinement (e.g. tubes and drains) especially if contaminated with incompatible material. See chapter 10. In case of fire, may produce hazardous decomposition products such as nitrogen oxides (NO <sub>x</sub> ), ammonia (NH <sub>3</sub> ), chlorine, hydrogen chloride.	
<b>5.3 Advice for firefighters</b>	
No special measures required. In the event of fire, wear a self-contained breathing apparatus and a chemical protective suit. Contact the proper local authorities. Ensure doors and windows are opened. Avoid inhalation of decomposition fumes.	
<b>6. ACCIDENTAL RELEASE MEASURES</b>	
<b>6.1 Personal precautions, protective equipment and emergency procedures</b>	
Avoid creating dusty conditions and prevent wind dispersal. Avoid contact with eyes, skin, and clothing. Use suitable protective equipment. Keep away from sources of ignition.	
<b>6.2 Environmental precautions</b>	
Prevent the material from contact with soil, entering surface water or sanitary sewer system. Do not discharge directly to a water source. If accidental spillage or washings enter drains or waterways-inform immediately local authorities.	
<b>6.3 Methods and material for containment and cleaning up</b>	
Vacuum or sweep up spillage and collect in suitable labelled containers for recovery or disposal. Do not collect spilled material in sawdust or other combustible material. Prevent formation of dust clouds. After cleaning, flush away traces with water.	
<b>6.4 Reference to other sections</b>	
See section 8 for personal protective equipment and section 13 for disposal considerations.	

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<b>7. HANDLING AND STORAGE</b>	
<b>7.1 Precautions for safe handling</b>	
Technical measures/ Precautions:	Use with adequate ventilation. Local exhaust ventilation should be provided. Avoid contact with eyes, skin and clothing. Avoid creating dusty conditions and prevent wind dispersal. Keep away from incompatible materials. Keep away from moisture. Use only clean equipment.
Advice on protection against fire and explosion:	Keep away from heat and sources of ignition. Keep away from combustible materials.
General occupation hygiene:	Do not eat, drink or smoke in work areas. Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas. Keep away from food, drink and animal feeding stuffs.
<b>7.2 Conditions for safe storage, including any incompatibilities</b>	
Requirements for storage areas and containers	Keep in a cool, dry and well-ventilated place. Restrict stack size (according to local regulations) and keep at least 1m distance around the stacks of bagged products. Suitable materials for containers: Plastics, Stainless steel, Aluminium. Unsuitable materials: Zinc, Copper
Further information on storage conditions	Protect from sunlight. Do not expose to temperatures exceeding 32 °C. Avoid unprotected outdoor storage, Protect from moisture.
Advice on common storage:	Do not store near combustible materials. Keep away from incompatible materials. See Chapter 10.  On farm, ensure that the fertilizer is not stored near by hay, straw, grain, diesel oil etc. When stored loose, take care to avoid mixing with other fertilizers.
<b>8. EXPOSURE CONTROLS / PERSONAL PROTECTION</b>	
<b>8.1 Control parameters</b>	
Regulated occupational exposure limit values:	No occupational exposure limits established.
Recommended monitoring procedures (following safety assessment estimation):	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to

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	use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazard substances.
<b>8.2 Exposure controls</b>	
Appropriate engineering controls:	No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
Environmental exposure controls:	Dispose washing waters in accordance with local regulations.
<b>Individual protection measures</b>	
Respiratory protection:	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Hand protection:	Use protective (heat resistant) gloves complying with an approved standard if a risk assessment indicates this is necessary.
Eye protection:	Use chemical goggles or face shield, complying with an approved standard if a risk assessment indicates this is necessary.
Skin and body protection:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Hygiene measures:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. A washing facility or water for eye and skin cleaning purposes should be present.

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<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>	
<b>9.1 Information on basic physical and chemical properties</b>	
Appearance:	Solid
Odour:	Odourless
Odour threshold:	Not applicable
Melting range:	120 – 180°C
Boiling temperature:	Not applicable – decomposes below boiling point.
Flash-point:	Not applicable
Flammability:	Not flammable.
Explosive properties:	Not explosive.
Oxidizing properties:	Not classified as oxidizing.
Vapour pressure:	Not determined.
Relative density (D4 (20)):	Not applicable
Solubility in water:	Easily soluble in water.
Partition coefficient n-octanol/water:	Not relevant as the substance is inorganic, considered to be low (based on high water solubility)
Viscosity:	Dynamic: Not applicable (solid). Kinetic: Not determined.
Specific conductivity:	Not applicable.
Auto ignition temperature:	Not applicable.
pH (10% water solution)	4.5 – 6.0
Surface tension:	Not applicable.
<b>9.2 Other information</b>	Bulk density: ~ 1.100 kg/m <sup>3</sup>
<b>10. STABILITY AND REACTIVITY</b>	
<b>10.1 Reactivity</b>	
No dangerous reaction known under conditions of normal use.	
<b>10.2 Chemical stability</b>	
Stable under recommended storage and handling conditions (see section 7, handling and storage).	
<b>10.3 Possibility of hazardous reactions</b>	
Under normal conditions of storage and use, hazardous reactions will not occur.	

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<b>10.4 Conditions to avoid</b>	
Decomposes on heating. Confinement must be avoided. Avoid heat above 130 °C, flames, sparks and other sources of ignitions. Avoid contact with incompatible materials and moisture for prolonged periods.	
<b>10.5 Incompatible materials</b>	
Oxidizing materials, metal salts, metals, acids, basis, combustible materials.	
<b>10.6 Hazardous decomposition products</b>	
Under normal conditions of storage and use, hazardous decomposition products should not be produced.	
<b>11. TOXICOLOGICAL INFORMATION</b>	
<b>11.1 Information on toxicological effects</b>	
<b>ACUTE TOXICITY</b>	
Conclusion/Summary:	No known significant effects or critical hazards.
<b><u>Irritation/Corrosion</u></b>	
Respiratory:	No known significant effects or critical hazards.
Eyes:	No known significant effects or critical hazards.
Skin:	No known significant effects or critical hazards.
<b><u>Sensitization</u></b>	
Skin:	No known significant effects or critical hazards.
Respiratory:	No known significant effects or critical hazards.
<b><u>Mutagenicity</u></b>	
Conclusion/Summary:	No known significant effects or critical hazards.
<b><u>Carcinogenicity</u></b>	
Conclusion/Summary:	No known significant effects or critical hazards.
<b><u>Teratogenicity</u></b>	
Conclusion/Summary:	No known significant effects or critical hazards.
<b><u>Reproductive toxicity</u></b>	
Conclusion/Summary:	No known significant effects or critical hazards.
Information on the likely routes of exposure	No known significant effects or critical hazards.
<b><u>Potential acute health effects</u></b>	
Inhalation:	Exposure to decomposition products may cause a health



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	hazard. Serious effects may be delayed following exposure.
Ingestion:	No known significant effects or critical hazards.
Skin contact:	No known significant effects or critical hazards.
Eye contact:	No known significant effects or critical hazards.
<b><u>Symptoms related to the physical, chemical and toxicological characteristics</u></b>	
Inhalation:	No specific data
Ingestion:	No specific data
Skin contact:	No specific data
Eye contact:	No specific data
<b><u>Delayed and immediate effects and also chronic effects from short and long term exposure</u></b>	
<b><u>Short term exposure</u></b>	
Potential immediate effects	No known significant effects or critical hazards.
Potential delayed effects	No known significant effects or critical hazards.
<b><u>Long term exposure</u></b>	
Potential immediate effects	No known significant effects or critical hazards.
Potential delayed effects	No known significant effects or critical hazards.
<b><u>Potential chronic health effects</u></b>	
Conclusion/Summary:	No known significant effects or critical hazards.
General:	No known significant effects or critical hazards.
Carcinogenicity:	No known significant effects or critical hazards.
Mutagenicity:	No known significant effects or critical hazards.
Teratogenicity:	No known significant effects or critical hazards.
Development effects:	No known significant effects or critical hazards.
Fertility effects:	No known significant effects or critical hazards.
<b>Classified component: Ammonium chloride</b>	<b>LD50: 1.410 mg/kg</b>
<b><i>12. ECOLOGICAL INFORMATION</i></b>	
<b><i>12.1 Toxicity</i></b>	
Conclusion/Summary:	No known significant effects or critical hazards.
<b><i>12.2 Persistence and degradability</i></b>	
Conclusion/Summary:	No known significant effects or critical hazards.
<b><i>12.3 Bioaccumulative potential</i></b>	

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Conclusion/Summary:	No known significant effects or critical hazards.
<b>12.4 Mobility in soil</b>	
Soil/water partition coefficient:	Not available
Mobility:	Not available
<b>12.5 Results of PBT and vPvB assessment</b>	
According to Annex XIII of Regulation (EC) No 1907/2006, no PBT and vPvB assessment has been conducted since the ingredients are with inorganic characterization.	
<b>13. DISPOSAL CONSIDERATIONS</b>	
The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario (s).	
<b>13.1 Waste treatment methods</b>	
<b><u>Product:</u></b>	
Methods of disposal:	The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
Hazardous waste:	Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.
<b><u>Packaging:</u></b>	
Methods of disposal:	The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. Empty the bag by shaking to remove as much as possible of its contents. Empty bags may be disposed of as non-hazardous material or returned for recycling.
Special precautions:	This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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<b>14. TRANSPORT INFORMATION</b>	
UN Number:	ADR/RID: not regulated. Not dangerous good. ADN/ADNR: not regulated. Not dangerous good. IMDG: not regulated. Not dangerous good. ICAO/IATA: not regulated. Not dangerous good.
Proper shipping name:	No special requirements. Not dangerous good.
Transport hazard classes:	ADR/RID: no classification assign ADN/ADNR: no classification assign IMDG: no classification assign ICAO/IATA: no classification assign
Packaging group:	ADR/RID: not regulated. Not dangerous good. ADN/ADNR: not regulated. Not dangerous good. IMDG: not regulated. Not dangerous good. ICAO/IATA: not regulated. Not dangerous good.
Marine pollutant	No
Special precautions for user:	Not applicable
<b>15. REGULATORY INFORMATION</b>	
<b>15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture:</b>	
Regulation EC 1907/2006 (REACH), Annex XVII, Restrictions on the manufacture, placing on the market and use of hazard substances and mixtures.	Not applicable
Other EU regulations: Europe inventory: IPPC – Parameter “Air”: IPPC – Parameter “Water”: Fertilizer Regulation 2003 / 2003:	Not determined. Not listed. Not listed. Applicable.

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**16. OTHER INFORMATION**

**DISCLAIMER:** The information provided in this safety data sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as 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 proceed, unless specified in the text.

**AGROPOLYCHIM makes no warranties which extended beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose.**

*Full text of H-statements , referred to under Section 2 and 3:*

H302: Harmful if swallowed.

H319: Causes serious eye irritation.

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### ANNEX - IDENTIFIED USES

<b>1. Use: Professional use, Formulation</b>	
Chemical product category:	PC12 - Fertilizers
Process categories:	<p>PROC 5 - Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>PROC 8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>PROC 8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC 15 - Use as laboratory reagent</p> <p>PROC 19 - Hand-mixing with intimate contact and only PPE available.</p>
Environmental release categories:	<p>ERC 2 - Formulation of preparations</p> <p>ERC 8B - Wide dispersive indoor use of reactive substances in open systems</p> <p>RC 8E - Wide dispersive outdoor use of reactive substances in open systems</p>
Activity:	Blending with e.g. compost, substrates and pesticides, packaging, dilutions, suspension, loading and unloading (bulk or bags). Equipment cleaning and maintenance.
Further information:	A qualitative approach was used to conclude safe use for workers. As minimal systemic effects were only noted at such high levels of substance that humans are normally not exposed to (see DNELs), a quantitative assessment is not considered necessary. The safety data sheet at hand provides the user with risk management measures and operational conditions which enables him to work with the mixture. See Sections 7 and 8 of this safety data sheet.

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<b>2. Use: Professional use, Distribution</b>	
Chemical product category:	PC12 - Fertilizers
Process categories:	<p>PROC 8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>PROC 8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p>
Environmental release categories:	<p>ERC 2 - Formulation of preparations</p> <p>ERC 8B - Wide dispersive indoor use of reactive substances in open systems</p> <p>RC 8E - Wide dispersive outdoor use of reactive substances in open systems</p>
Activity:	Packaging, loading and unloading (bulk or bags). Equipment cleaning and maintenance.
Further information:	A qualitative approach was used to conclude safe use for workers. As minimal systemic effects were only noted at such high levels of substance that humans are normally not exposed to (see DNELs), a quantitative assessment is not considered necessary. The safety data sheet at hand provides the user with risk management measures and operational conditions which enables him to work with the mixture. See Sections 7 and 8 of this safety data sheet.

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<b>3. Use: Industrial use, Formulation</b>	
Chemical product category:	PC12 - Fertilizers
Process categories:	<p>PROC 5 - Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>PROC 8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>PROC 8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC 15 - Use as laboratory reagent</p>
Environmental release categories:	ERC 2 - Formulation of preparations
Activity:	Blending with e.g. compost, substrates and pesticides, packaging, dilutions, suspension, loading and unloading (bulk or bags). Equipment cleaning and maintenance.
Further information:	A qualitative approach was used to conclude safe use for workers. As minimal systemic effects were only noted at such high levels of substance that humans are normally not exposed to (see DNELs), a quantitative assessment is not considered necessary. The safety data sheet at hand provides the user with risk management measures and operational conditions which enables him to work with the mixture. See Sections 7 and 8 of this safety data sheet.