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

Product Detail : Application of the substance / the preparation: Manufacturer / supplier: 3801N Conductive Silver Coating aerosol 400 ml Surface Coating. For industrial and professional use only. Holland Shielding Systems B.V. Jacobus Lipsweg 124 3316 BP Dordrecht the Netherlands Ph: +31(0)78- 204 90 00 Fax: +31(0)78- 204 90 08 www.hollandshielding.com info@hollandshielding.com

In an emergency, please contact your local/national poison control center (accessible only to medical personnel).

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

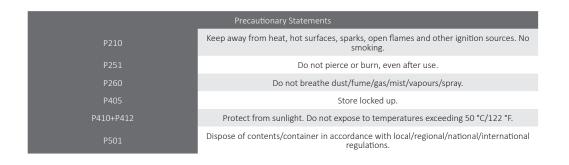
Classification according to Regulation (EC) No 1272/2008		
Aerosol 1	H222-H229	Extremely flammable aerosol. Pressurised container: May burst if heated.
Skin Irrit. 2	H315	Causes skin irritation.
Skin. 1	H317	May cause an allergic skin reaction.
Carc. 2	H351	Suspected of causing cancer. Route of exposure: Inhalation.
Repr. 2	H361d	Suspected of damaging the unborn child.
STOT RE 1	H372-H373	Causes damage to the respiratory system through prolonged or repeated
Aquatic Chronic 3	H412	exposure. Route of exposure: Inhalation. May cause damage to the hearing
Asp. Tox. 1	H304	organs through prolonged or repeated exposure. Route of exposure: Inhalation.
Aquatic Chronic 3	H412	Harmful to aquatic life with long lasting effects.

2.2 Label Elements

Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the GB CLP regulation.		
Hazard pictograms		
Signal Word:	Danger	

Hazard-determining components of labelling: nickel powder (particle diameter < 1 mm) Toluene

Hazard Statements		
H222-H229	Extremely flammable aerosol. Pressurised container: May burst if heated.	
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H351	Suspected of causing cancer. Route of exposure: Inhalation.	
H361d	Suspected of damaging the unborn child.	
H372-H373	Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure: nhalation. May cause damage to the hearing organs through prolonged or repeated exposure. Route of exposure: Inhalation.	
H412	Harmful to aquatic life with long lasting effects.	

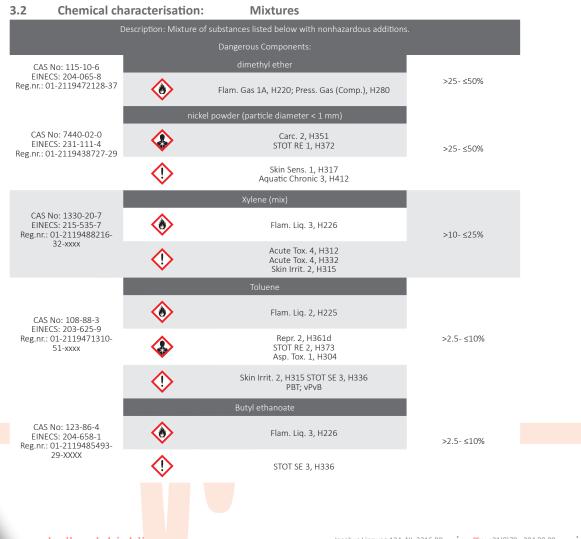


Additional Information:		
Product contains:	Reportable explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 9. Buildup of explosive mixtures possible without sufficient ventilation.	

2.3 Other Hazards

Results of PBT and vPvB assessment	
PBT: CAS. 108-88-3	Toluene
vPvB: CAS. 108-88-3	Toluene

3. COMPOSITION/INFORMATION ON INGREDIENTS



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Additional Information: For the wording of the listed hazard phrases refer to section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General information	Immediately remove any clothing soiled by the product.	
After inhalation	Supply fresh air and call for a doctor. In case of unconsciousness place patient stably in side position for transportation. Supply fresh air; consult doctor in case of complaints.	
After skin contact	Immediately wash with water and soap and rinse thoroughly. Remove contaminated clothing. Immediately rinse with water.	
After eye contact	Rinse opened eye for several minutes under running water.	
After swallowing	Do not induce vomiting; call for medical help immediately and show safety datasheet or label.	

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

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

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture During heating or in case of fire poisonous gases are produced.

5.3 Advice for firefighters

Protective equipment:

Mount respiratory protective device.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures Mount respiratory protective device. Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up: Dispose contaminated material as waste according to section 13. Ensure adequate ventilation.

6.4 Reference to other sectionsSee Section 7 for information on safe handling.See Section 8 for information on personal protection equipment.See Section 13 for disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure good ventilation/extraction at the workplace. Open and handle receptacle with care.

Hygiene measures	Wash hands before breaks and at the end of workday.
Information about fire- and explosion protection	Do not spray onto a naked flame or any incandescent material. Keep ignition sources away- Do not smoke. Keep respiratory protective device available.
Pressurised container	Protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

7.2 Conditions for safe storage, including any incompatibilities

Storage:		
Requirements to be met by storerooms and receptacles	Observe official regulations on storing packagings with pressurised containers.	
Information about storage in one common storage facility	Not required.	
Further information about storage conditions	Keep receptacle tightly sealed and in a well-ventilated place. Keep away from heat.	

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Additional information about design of technical facilities:

No further data; see section 7.

Ingredients with limit values that require monitoring at the workplace: WELs (Workplace Exposure Limits)

CAS No. 115-10-6	dimethyl ether		
WEL	Short-term value:	958 mg/m³, 500 ppm	
	Long-term value:	766 mg/m³, 400 ppm	
CAS No. 7440-02-0	nickel powder (particle diameter < 1 mm)		
WEL	Long-term value:	0.5 mg/m³ as Ni	Sk; Carc
CAS No. 1330-20-7	Xylene (mix)		
WEL	Short-term value:	441 mg/m³, 100 ppm	Sk; BMGV
	Long-term value:	220 mg/m³, 50 ppm	
CAS No. 108-88-3	Toluene		
WEL	Short-term value:	384 mg/m³, 100 ppm	Sk
	Long-term value:	191 mg/m³, 50 ppm	
CAS No. 123-86-4	Butyl ethanoate		
WEL	Short-term value:	966 mg/m³, 200 ppm	
	Long-term value:	724 mg/m³, 150 ppm	
CAS No. 67-64-1	propan-2-one		
WEL	Short-term value:	3620 mg/m³, 1500 ppm	
	Long-term value:	1210 mg/m³, 500 ppm	
CAS No. 108-65-6	2-methoxy-1-methylethyl acetate		
WEL	Short-term value:	548 mg/m³, 100 ppm	Sk
	Long-term value:	274 mg/m³, 50 ppm	
CAS No. 100-41-4	ethylbenzene		
WEL	Short-term value:	552 mg/m³, 125 ppm	Sk
	Long-term value:	441 mg/m³, 100 ppm	

DNELs

CAS No. 115-10-6	dimethyl ether	
Inhalative	DNEL	471 mg/m³ (Con)
		1,894 mg/m³ (Ind)
CAS No. 7440-02-0	nickel powder (particle diameter < 1 mm)	
Dermal	DNEL	0.035 mg/day (Human)
Inhalative	DNEL	0.05 mg/m³ (Human)
CAS No. 1330-20-7	Xylene (mix)	
Dermal	DNEL	108 mg/day (Con)
		180 mg/day (Ind)
Inhalative	DNEL	14.8 mg/m³ (Con)
		77 mg/m³ (Ind)
CAS No. 108-88-3	Toluene	
Oral	DNEL	8.13 mg/day (Con)
Dermal	DNEL	226 mg/day (Con)
		384 mg/day (Ind)
Inhalative	DNEL	56.5 mg/m³ (Con)
		192 mg/m³ (Ind)

CAS No. 123-86-4	Butyl ethanoate	
Oral	DNEL	2 mg/day (Con)
Dermal	DNEL	6 mg/day (Con)
		11 mg/day (Ind)
Inhalative	DNEL	35.7 mg/m³ (Con)
		300 mg/m³ (Ind)
CAS No. 67-64-1	Propan-2-one	
Oral	DNEL	62 mg/day (Con)
Dermal	DNEL	62 mg/day (Con)
		186 mg/day (Ind)
Inhalative	DNEL	200 mg/m³ (Con)
		1,210 mg/m³ (Ind)
CAS No. 108-65-6	2-methoxy-1-methylethyl acetate	
Oral	DNEL	1.67 mg/day (Con)
Dermal	DNEL	54.8 mg/day (Con)
		153.5 mg/day (Ind)
Inhalative	DNEL	33 mg/m³ (Con)
		275 mg/m³ (Ind)

PNECs

CAS No. 1330-20-7	Xylene mixed isomers	
Fresh water;	PNEC	0.327 mg/l
Marine water;		0.327 mg/l
Intermittent release;		0.327 mg/l
STP (sewage-treatment plant);		6.58 mg/l
Sediment (Freshwater);		12.46 mg/kg
Sediment (Marinewater);		12.46 mg/kg
Soil;		2.31 mg/kg
CAS No. 123-86-4	Butyl Acetate	
Fresh water;	PNEC	0.18 mg/l
Marine water;		0.018 mg/l
Intermittent use/release:		0.36 mg/l
STP (sewage-treatment plant);		35.6 mg/l
Sediment (Freshwater);		0.981 mg/kg
Sediment (Marinewater);		0.0981 mg/kg
Soil;		0.0903 mg/kg

Ingredients with Biological Limit Values:

Xylene (mix)	
650 mmol/mol	creatinine
Medium:	urine
Sampling time:	post shift
Parameter:	methyl hippuric acid
	650 mmol/mol Medium: Sampling time:

Additional information:

The lists valid during the making were used as basis.

8.2 Exposure controls

	Personal protective equipment	
General protective and hygienic measures	Keep away from foodstuffs, beverages, and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Store protective clothing separately. Avoid contact with the skin. Avoid contact with the eyes and skin.	
Respiratory protection	When spraying the product, use a respiratory protective device.	
Protection of hands	When skin exposure may occur, advice should be sought from the glove supplier on appropriate types and usage times for this product.	Protective gloves
Eye protection	Safety glasses	Tightly sealed goggles

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties General Information:

	Appearance	
Form:	Aerosol	
Colour:	According to product specification	
Odour:	Characteristic	
Odour threshold:	Not determined.	
pH-value:	Not determined.	
	Change in condition	
Melting point/freezing point:	Undetermined.	
Initial boiling point and boiling range:	56 °C	
Flash point:	-42 °C	
Flammability (solid, gas):	Not applicable.	
Auto-ignition temperature:	235 °C	
Decomposition temperature:	Not determined.	
Ignition temperature:	Product is not selfigniting.	
Explosive properties:	Heating may cause an explosion	
Explosion limit (Lower)	1.1 Vol %	
Explosion limit (Upper)	18.6 Vol %	
Vapour pressure at 20 °C:	5,200 hPa	
Density at 20 °C:	1.028 g/cm³	
Relative density	Not determined.	
Vapour density	Not determined.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with water:	NOT MISCIBLE	
Partition coefficient: n-octanol/water:	Not determined.	
Viscosity (Dynamic)	Not determined.	
Viscosity (Kinematic)	Not determined.	
	Solvent content:	
Organic solvents:	61.4%	
Solids content:	38.6 %	

9.2 Other information No further relevant information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity No further relevant information available.

10.2 Chemical stability Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible materials No further relevant information available.

10.6 Hazardous decomposition products No dangerous decomposition products when stored and handled correctly

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

CAS No. 115-10-6	dimethyl ether	
Inhalative	LC50/4 h	248.49 mg/l (rat)
CAS No. 7440-02-0	nickel powder (particle diameter < 1 mm)	
Oral	LD50	>9,000 mg/kg (Rat)
CAS No. 1330-20-7	Xylene (mix)	
Oral	LD50	5,000 mg/kg (Rat)
Dermal	LD50	2,000 mg/kg (rbt)
Inhalative	LC50/4 h	11 mg/l (Rat)
CAS No. 108-88-3	Toluene	
Oral	LD50	5,580 mg/kg (Rat)
Dermal	LD50	5,000 mg/kg (Rab)
Inhalative	LC50/4 h	20 mg/l (Rat)
CAS No. 123-86-4	Butyl ethanoate	
Oral	LD50	10,760 mg/kg (rat)
Dermal	LD50	14,112 mg/kg (Rab)
Inhalative	LC50/4 h	23.4 mg/l (Rat)
CAS No. 67-64-1	propan-2-one	
Oral	LD50	5,800 mg/kg (Rat)
Dermal	LD50	7,400 mg/kg (Rabbit)
Inhalative	LC50/4 h	76 mg/l (Rat)
CAS No. 108-65-6	2-methoxy-1-methylethyl acetate	
Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	5,000 mg/kg (Rat)
Inhalative	LC50/4 h	>10.8 mg/l (Rat)
CAS No. 100-41-4	ethylbenzene	
Oral	LD50	3,500 mg/kg (rat)
Dermal	LD50	17,800 mg/kg (rbt)

Primary irritant effect

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	May cause an allergic skin reaction.

Additional toxicological information

CMR effects	(carcinogenity, mutagenicity and toxicity for reproduction)
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Suspected of causing cancer. Route of exposure: Inhalation.
Reproductive toxicity	Suspected of damaging the unborn child.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation. May cause damage to the hearing organs through prolonged or repeated exposure. Route of exposure: Inhalation.
Aspiration hazard	Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity:



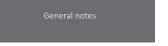
12.2 Persistence and degradability No further relevant information available.

12.3 Bio accumulative potential

No further relevant information available.

12.4Mobility in soilNo further relevant information available.Ecotoxical effects:Remark: Harmful to fish

Additional ecological information:



Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground. Harmful to aquatic organisms

PBT: CAS No. 108-88-3 Toluene

vPvB: CAS No. 108-88-3 Toluene

12.6 Other adverse effects

No further relevant information available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

commendation:

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

commendation:

Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

UN1950

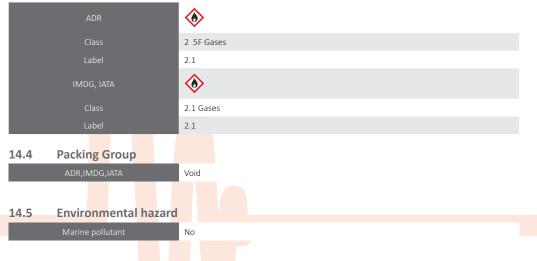
14.1 UN Number

ADR. IMDG.IATA

14.2 UN Proper Shipping Name

 ent roper empping n	
ADR	1950 Aerosols
IMDG	Aerosols
IATA	Aerosols, flammable

14.3 Transport Hazard Class

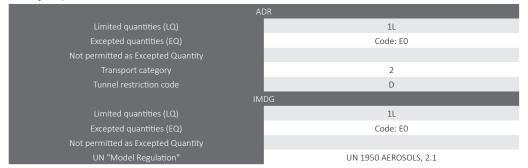


14.6 Special precautions for user

Warning:	Gases.	
Hazard identification number (Kemler code):	-	
EMS Number:	F-D, S-U	
Stowage Code	SW1 Protected from sources of heat.	
	SW22 For AEROSOLS with a maximum capacity of 1 litre	
	Category A. For AEROSOLS with a capacity above 1 litre	
	Category B. For WASTE AEROSOLS	
	Category C, Clear of living quarters.	
Segregation Code	SG69 For AEROSOLS with maximum capac- ity of 1 litre	Segregation as for class 9
		Stow "separated from" class 1 except for division 1.4.
	For AEROSOLS with a capacity above 1 litre	Segregation as for the appropriate subdivi- sion of class 2
	For WASTE AEROSOLS:	Segregation as for the appropriate subdivi- sion of class 2

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

Transport/Additional information:



15. **REGULATORY INFORMATION**

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

Regulated explosives precursors	None of the ingredients is listed.
Regulated poisons	None of the ingredients is listed.
Reportable explosives precursors	67-64-1 propan-2-one Listed
Reportable poisons	None of the ingredients is listed.
Directive 2012/18/EU	Named dangerous substances- ANNEX I None of the ingredients is listed.
Seveso category P3a	FLAMMABLE AEROSOLS
	Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
	Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
National regulations:	Technical instructions (air):CLASS Share in %
	NK 61.4
Waterhazard class:	Water hazard class 2 (Self-assessment): hazardous for water.

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Full text of H-Statements referred to under sections 2 and 3:

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
Department issuing SDS:	Product safety department: LABORATORY

Abbreviations and acronyms

and acronying	
RID	Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO	International Civil Aviation Organisation
ADR	Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG	International Maritime Code for Dangerous Goods
IATA	International Air Transport Association
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
CAS	Chemical Abstracts Service (division of the American Chemical Society)
WEL	Workplace Exposure Limit
DNEL	Derived No-Effect Level (UK REACH)
PNEC	Predicted No-Effect Concentration (UK REACH)
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
PBT	Persistent, Bioaccumulative and Toxic
vPvB	very Persistent and very Bioaccumulative
Flam. Gas 1A	Flammable gases – Category 1A
Aerosol 1	Aerosols – Category 1
Press. Gas (Comp.)	Gases under pressure – Compressed gas
Flam. Liq. 2	Flammable liquids – Category 2
Flam. Liq. 3	Flammable liquids – Category 3
Acute Tox. 4	Acute toxicity – Category 4
Skin Irrit. 2	Skin corrosion/irritation – Category 2
Eye Irrit. 2	Serious eye damage/eye irritation – Category 2
Skin Sens. 1	Skin sensitisation – Category 1
Repr. 2	Reproductive toxicity – Category 2
Carc. 2	Carcinogenicity – Category 2
STOT SE 3	Specific target organ toxicity (single exposure) – Category 3
STOT RE 1	Specific target organ toxicity (repeated exposure) – Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1	Aspiration hazard – Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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