

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name: 05060 Anti-Fog Spray

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

Relevant identified uses: cleaning and anti-fog treatment of automobile glass.

Uses advised against: not determined.

1.3. Details of the supplier of the safety data sheet

Supplier: Nowy Samochód S.A.

Address: ul. Zbyszka Cybulskiego 3, 00-725 Warszawa, PL

Telephone/fax: +48 602-444-356

E-mail address for a competent person responsible for SDS: info@soft99.pl

1.4. Emergency telephone number

112 (general emergency telephone number)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Aerosol 1 H222, Aerosol 1 H229, Eye Dam. 1 H318

Extremely flammable aerosol. Pressurised container: May burst if heated. Causes serious eye damage.

2.2. Label elements

Hazard pictograms and signal words



Hazardous components placed on the label

Contains: 2,2'-iminodiethanol.

Hazard statements

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

H318 Causes serious eye damage.

Precautionary statements

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

P501 Dispose of contents/container to properly labelled waste containers according to national law.

Additional information

None.

2.3. Other hazards

Product does not contain components, which meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Mixtures

CAS number: 74-98-6 EC number: 200-827-9 Index number: 601-003-00-5 Registration number: —	propane Flam. Gas 1 H220, Press. Gas. H280	C ≤ 10 %
CAS number: 106-97-8 EC number: 203-448-7 Index number: 601-004-00-0 Registration number: —	butane Flam. Gas 1 H220, Press. Gas. H280	C ≤ 10 %
CAS number: 75-28-5 EC number: 200-857-2 Index number: 601-004-00-0 Registration number: —	isobutane Flam. Gas 1 H220, Press. Gas. H280	C ≤ 10 %
CAS number: 111-42-2 EC number: 203-868-0 Index number: 603-071-00-1 Registration number: —	2,2'-iminodiethanol Acute Tox. 4 H302, Skin Irrit. 2 H315, Eye Dam. 1 H318, STOT RE 2 H373	C < 10 %

Full text of each H phrase is given in section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Contact with skin

Take off contaminated clothing. Wash the exposed parts of the skin thoroughly with water and soap. Consult a doctor if disturbing symptoms appear.

Contact with eyes

Protect non-irritated eye, remove contact lenses. Rinse contaminated eyes thoroughly with water for 10 - 15 minutes. Avoid powerful water stream – risk of cornea damage. Immediately consult a ophthalmologist. Apply a sterile dressing.

Ingestion

Due to organoleptic properties, exposure by this route is unlikely. However in case of ingestion rinse mouth with water. Never give anything by mouth to an unconscious person. Consult a doctor if disturbing symptoms occur.

After inhalation

Remove the victim to fresh air, keep warm and at rest. Consult a doctor if disturbing symptoms appear.

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

Contact with skin

The product may cause redness, burning sensation, skin dryness.

Contact with eyes

The product may cause burning sensation, irritation, tearing, pain, risk of serious damage to eyes, conjunctival redness.

Ingestion

Exposure by this route does not occur.

After inhalation

High concentration of vapours and mists may cause headaches, dizziness, somnolence.

Effects of exposure

There are no known effects other than those mentioned above.

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

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured. Symptomatic treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: carbon dioxide, water spray, extinguishing powder.

Unsuitable extinguishing media: water jet – risk of the propagation of the flame.

5.2. Special hazards arising from the substance or mixture

During the fire may produce harmful gases containing e.g. carbon monoxides, nitrogen oxides, other hazardous unidentified products of thermal decomposition. Do not inhale combustion products, they can be dangerous for human health.

5.3. Advice for firefighters

Extremely flammable aerosol. Pressurised container: May burst if heated. Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. Vapours are heavier than air, they accumulate in the lower parts of the premises and pose a risk of explosion. Cool down the containers that are endangered by fire with a water spray from a safe distance. Collect used extinguishing media.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. Ensure that only the trained personnel removes the effects of the accident. In case of large spills, isolate the exposed area. Eliminate all sources of ignition - do not use an open flame, do not smoke, do not use sparking tools, etc. Use personal protective equipment.

6.2. Environmental precautions

Do not allow the product to get into the sewage system, surface waters and soil. In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify relevant emergency services.

6.3. Methods and material for containment and cleaning up

Collect damaged packages mechanically. Collect the spilled product with incombustible absorbing materials (e.g. sand, earth, universal binding agents) and place it in labelled containers. Proceed in accordance with applicable regulations. Use non-sparking tools. Ventilate the contaminated area.

6.4. Reference to other sections

Appropriate conduct with waste product – see section 13. Personal protective equipment – see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Do not spray on naked flame or any incandescent material. Provide general and / or local ventilation in the workplace in order to maintain the concentration of the harmful agent in the air below the established limit values. Use personal protective equipment. Before break and after work wash hands carefully. Do not eat, drink and smoke during the work. Avoid eyes and skin contamination. Eliminate sources of ignition - do not use an open flame, do not smoke, do not use sparking tools and clothes made of fabrics susceptible to static electricity.

7.2. Conditions for safe storage, including any incompatibilities

Store in properly labeled, sealed packages in a dry, cool and well-ventilated place. Keep away from incompatible materials (see subsection 10.5). Keep away from, foodstuffs and animal feed . Keep away from sources of fire. Smoking, using open fire and sparking tools is prohibited in the warehouse. Recommended storage temperature: < 40°C.

7.3. Specific end use(s)

No information about other uses than those mentioned in subsection 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limit Values

Specification	WEL 8 hour	WEL 15 min	Comments
butane	1450 mg/m ³	1810 mg/m ³	—

EH40/2005 Workplace exposure limits. Fourth Edition 2020.

Recommended control procedures

Procedures for monitoring concentrations of hazardous components in the air and procedures for monitoring air purity in the workplace should be applied - if available and justified at a given position - in accordance with the relevant national or European Standards, taking into account the conditions at the site of exposure and the appropriate measurement methods adapted to the working conditions. The mode, type and frequency of tests and measurements should meet the requirements of the appropriate laws.

DNEL and PNEC

Not applicable.

8.2. Exposure controls

Industrial hygiene

Use the product in accordance with good occupational hygiene and safety practices. Do not eat, drink and smoke during the work. Before break and after work wash hands carefully. Ensure adequate general and/or local ventilation at the workplace. Do not allow vapours to concentrate in the air and to create concentrations within the limits of explosive properties or exceeding the OEL values. If during work processes there is a risk of clothing fire on the employee - no more than 20 m in a horizontal line from the stations where these processes are performed, emergency showers (safety showers) for washing the whole body and separate showers (showers) for eye washing should be installed.

Individual protection measures

The necessity to use and the selection of appropriate personal protective equipment should take into account the type of risk posed by the product, working conditions and the way of handling the product. The personal protective equipment used must meet the requirements of Regulation (EU) 2016/425 and the relevant standards. The employer is obliged to provide protection measures appropriate to the activities performed and meeting all quality requirements, including their maintenance and cleaning. Any contaminated or damaged PPE must be replaced immediately.

Hand protection

Use protective gloves resistant to chemicals according to EN 374. Select the material for the gloves individually at the workplace.

The glove material has to be impermeable and resistant to the product. The choice of material for protective gloves should be made taking into account the breakthrough times, permeation rate and degradation. Moreover, the selection of the appropriate gloves does not only depend on the material, but also on other quality characteristics and varies from manufacturer to manufacturer. The exact breakthrough time has to be obtained from the glove manufacturer and it must be observed.

Body protection

Depending on the performed task, use protective clothing appropriate to the potential hazard. In case of a prolonged contact with the product, use protective clothing made of coated or impregnated fabrics.

Eye protection

Use safety glasses in accordance with EN 166.

Respiratory protection

In case of the formation of vapours and aerosols, use absorbing equipment or absorbing and filtering equipment with a suitable protection class (class 1/protection against gases or vapours with a concentration in the air volume not exceeding 0.1%, class 2 / protection against gases or vapours with a concentration in the air not exceeding 0.5%, class 3 / protect against gases or vapours at concentrations in the air volume to 1%). In cases where the oxygen concentration is $\leq 19\%$ and / or maximum concentration of toxic substances in the air is $\geq 1.0\%$ by volume, isolating equipment should be used.

Thermal hazards

Not applicable.

Environmental exposure controls

Prevent direct release to drains/ surface waters. Do not contaminate surface waters and drainage ditches with chemicals or used containers. Released product or uncontrolled spills to surface waters should be reported to appropriate authorities in accordance with local and national legislations. Dispose as chemical waste, in accordance with local and national legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid, aerosol
Colour:	light yellow
Odour:	characteristic
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	100 °C
Flammability:	flammable
Lower and upper explosion limit:	not determined
Flash point:	not applicable
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH:	10,61±0,6
Kinematic viscosity:	not applicable
Solubility:	not soluble in water
Partition coefficient n-octanol/water (log value):	not applicable
Vapour pressure:	0,30±0,04 MPa (25 °C)
Density and/or relative density:	1,022±0,02 (20 °C)
Relative vapour density:	not determined
Particle characteristics:	not applicable

9.2. Other information

No additional tests.

SECTION 10: Stability and reactivity

10.1. Reactivity

Product is reactive. It does not go under hazardous polymerization. Product's vapours may form explosive mixtures with air. See also subsection 10.3-10.5.

10.2. Chemical stability

The product is stable under normal conditions of use and storage.

10.3. Possibility of hazardous reactions

Hazardous reactions are not known.

10.4. Conditions to avoid

Avoid heat sources, open flames, sparking tools and direct sunlight. Avoid temperatures: > 50°C.

10.5. Incompatible materials

Avoid contact with following materials: strong oxidants.

10.6. Hazardous decomposition products

Not known.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

propane [CAS 74-98-6]	
LC ₅₀ (inhalation, rat)	1443 mg/l/15 min

2,2'-iminodiethanol [CAS 111-42-2]	
LD ₅₀ (oral, rat)	1100 mg/kg

Mixture	
ATE _{mix} (ingestion)	> 2000 mg/kg
Based on available data, the classification criteria are not met.	

Skin corrosion/irritation

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

Serious eye damage/irritation

Causes serious eye damage.

Respiratory or skin sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Information on likely routes of exposure

Exposure route: eye exposure, skin exposure, inhalation. For more information on the impact of each possible route of exposure, see subsection 4.2.

Symptoms related to the physical, chemical and toxicological characteristics

See subsection 4.2 of the SDS.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

See subsection 4.2 of the SDS.

11.2. Information on other hazards

Endocrine disrupting properties

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.

Other information

No data on other hazards.

SECTION 12: Ecological information

12.1. Toxicity

butane [CAS 106-97-8]		
LC ₅₀ (fish)	24,11 mg/l / 96 h / —	method: (Q)SAR
isobutane [CAS 75-28-5]		
LC ₅₀ (fish)	27,98 mg/l / 96 h / —	method: QSAR
2,2'-iminodiethanol [CAS 111-42-2]		
LC ₅₀ (fish)	460 mg/l / 96 h / <i>Oncorhynchus mykiss</i>	method: —
EC ₅₀ (invertebrates)	30,1 mg/l / 48 h / <i>Ceriodaphnia dubia</i>	method: ASTM Standard E729-80
NOEC (invertebrates)	0,78 mg/l / 21 days / —	method: —
EC ₅₀ (algae)	2,7 mg/l / 72 h / <i>Pseudokirchneriella subcapitata</i>	method: EPA 600/9-78-018
EC ₁₀ (microorganisms)	> 1000 mg/l / 30 minut / —	method: OECD 209
Mixture		
The product is not classified as hazardous to the aquatic environment.		

12.2. Persistence and degradability

2,2'-iminodiethanol CAS 111-42-2	Easily biodegradable	93%/28 days	method: OECD 301 F
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12.3. Bioaccumulative potential

butane CAS 106-97-8	log Po/w = 2,31	method: —
	BCF = —	method: —
isobutane CAS 75-28-5	log Po/w = 2,8	method: —
	BCF = —	method: —

2,2'-iminodiethanol CAS 111-42-2	log Po/w = -2,46	method: OECD 107
	BCF = —	method: OECD 107

12.4. Mobility in soil

The product is very volatile - when released to the environment, it quickly spreads in the atmospheric air and is easily released to air from soil and water. Mobility of components of the mixture in soil depends on the hydrophilic and hydrophobic properties and biotic and abiotic conditions of soil, including its structure, climatic conditions, seasons and soil organisms.

12.5. Results of PBT and vPvB assessment

Product does not contain components, which meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

12.6. Endocrine disrupting properties

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.

12.7. Other adverse effects

The mixture is not classified as hazardous to the ozone layer. Consider other harmful effects of individual components of the mixture on the environment (eg, global warming potential).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recommendations for the product

The waste product should be recovered or disposed of in authorized incineration plants or waste disposal / neutralization plants, in accordance with applicable regulations. Do not empty into drains. The waste code should be given in the place of its formation.

Recommendations for used packaging

Reuse / recycle / eliminate empty containers in accordance with the local legislation. Only completely empty containers can be reused. Do not pierce or burn, even after use.

EU legal acts: directives of the European Parliament and of the Council: 2008/98 / EC as amended and 94/62 / EC as amended.

SECTION 14: Transport information

14.1. UN number or ID number

UN 1950

14.2. UN proper shipping name

ADR

AEROSOLS, FLAMMABLE

IMDG

AEROSOLS

ICAO/IATA

AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

2

14.4. Packing group

Not applicable.

14.5. Environmental hazards

ADR

no

IMDG no
ICAO/IATA no

14.6. Special precautions for user

Use personal protective equipment according to section 8 when handling the product. Avoid sources of heat and fire. Packages should not be thrown or subjected to impact. Receptacles shall be placed on the vehicle or container in such a way, that they cannot trip over or fall.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

Additional data

ADR	limited quantity LQ	1 L
	transport category	2
	tunnel restriction code	(D)
IMDG	limited quantity LQ	1 L
	EmS code	F-D, S-U
ICAO/IATA	packing instruction (LQ)	Y203
	limited quantity (LQ)	30 kg G
	packing instruction, passenger	203
	maximum quantity, passenger	75 kg
	packing instruction, cargo	203
	maximum quantity, cargo	150 kg

SECTION 15: Regulatory information

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

ADR Agreement concerning the International Carriage of Dangerous Goods by Road.

IMDG Code International Maritime Dangerous Goods Code

IATA Dangerous Goods Regulations

1907/2006/EC REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (as amended).

1272/2008/EC REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (as amended).

2020/878/EU COMMISSION REGULATION of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals..

2008/98/EC DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives (as amended).

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended

The components of the mixture are not included in Annex XVII of the REACH Regulation.

The components of the mixture are not included in Annex XIV of the REACH Regulation.

15.2. Chemical safety assessment

A Chemical Safety Assessment is not required for mixtures.

SECTION 16: Other information

Full text of H phrases mentioned in section 3

H220 Extremely flammable gas.
H280 Contains gas under pressure; may explode if heated.

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.

Clarification of abbreviations and acronyms

ADR	Agreement concerning the International Carriage of Dangerous Goods by Road.
DNEL	Derived No-Effect Level.
EC ₁₀	A statistically calculated concentration of a chemical substance in an environmental medium that can cause specific effects in 50% of the tested organisms of a given population under certain conditions.
EC ₅₀	(median effective concentration) - statistically calculated concentration of a chemical substance in an environmental medium that can cause specific effects in 50% of the tested organisms of a given population under certain conditions.
EN	European standard
IATA	The International Air Transport Association.
IMDG	International Maritime Dangerous Goods Code.
ISO	International Organization for Standardization
LC ₅₀	Concentration of a substance that is lethal to 50 percent of the organisms in a toxicity test.
LD ₅₀	Dose of a substance that is lethal to 50 percent of the organisms in a toxicity test.
NOEC	The highest concentration that does not cause a statistically significant adverse effect in the exposed population, when compared with its appropriate control.
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, bioaccumulative and toxic substance.
PNEC	Predicted no-effect concentration.
RID	The Regulation concerning the International Carriage of Dangerous Goods by Rail.
vPvB	Very persistent and very bioaccumulative substance.
Acute Tox. 4	Acute toxicity - category 4
Aerosol 1	Aerosol - category 1
Eye Dam. 1	Serious eye damage - category 1
Flam. Gas 1	Flammable gas - category 1
Press. Gas.	Gases under pressure
STOT RE 2	Specific target organ toxicity — repeated exposure - category 2
Skin Irrit. 2	Skin irritation - category 2

Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training. Personnel related with the transport of hazardous substances in accordance with the ADR agreement should be trained and should obtain proper certification in a range of their obligations (general training, workplace training, safety training).

Key literature references and sources of data

This SDS was prepared on the basis of the safety data sheet provided by the manufacturer, literature data, online databases (e.g. ECHA, TOXNET, COSING), our knowledge and experience, taking into account the current legislation.

Procedures used for the mixture classification according with Regulation 1272/2008/EC as amended

Aerosol 1 H222	on basis of test data
Aerosol 1 H229	on basis of test data
Eye Dam. 1 H318	calculation method

Additional information

Changes:	section: 1-16
SDS issued by:	THETA Consulting Sp. z o.o.