

SECTION 1 Identification

1.1. GHS Product identifier

Product form	: Mixture
Trade name	: Soleris® 2, E. coli Supplement (MUG)
Type of product	: Food Safety -- [Food Safety]
Product code	: S2-ECM

1.2. Other means of identification

Part Number(s) : S2-ECM|700003785

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Laboratory chemicals, Scientific research and development
Recommended use : Laboratory chemicals, Scientific research and development

1.4. Supplier's details

Manufacturer

Neogen Corporation
620 Leshar Place
Lansing, Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

1.5. Emergency phone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Flammable liquids, Category 3	H226	Flammable liquid and vapor.
Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.
Germ cell mutagenicity, Category 2	H341	Suspected of causing genetic defects.
Carcinogenicity, Category 1B	H350	May cause cancer.
Reproductive toxicity, Category 1B	H360	May damage fertility or the unborn child.
Specific target organ toxicity, Single exposure, Category 1	H370	Causes damage to organs.
Specific target organ toxicity, Repeated exposure, Category 2	H373	May cause damage to organs through prolonged or repeated exposure.

Full text of H statements : see section 16

2.2. GHS label elements, including precautionary statements

GHS CA labeling

Hazard pictograms (GHS CA) :



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Signal word (GHS CA)	: Danger
Hazard statements (GHS CA)	: H226 - Flammable liquid and vapor H315 - Causes skin irritation H319 - Causes serious eye irritation H341 - Suspected of causing genetic defects. H350 - May cause cancer. H360 - May damage fertility or the unborn child H370 - Causes damage to organs. H373 - May cause damage to organs through prolonged or repeated exposure.
Precautionary statements (GHS CA)	: P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed. P240 - Ground and bond container and receiving equipment. P241 - Use explosion-proof equipment. P242 - Use non-sparking tools. P243 - Take action to prevent static discharges. P260 - Do not breathe dust, fume, gas, mist, vapors, spray. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection. P302+P352 - IF ON SKIN: Wash with plenty of water. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P311 - IF exposed or concerned: Call a POISON CENTER or a doctor. P308+P313 - IF exposed or concerned: Get medical advice or attention. P314 - Get medical advice or attention if you feel unwell. P321 - Specific treatment (see supplemental first aid instruction on this label). P332+P313 - If skin irritation occurs: Get medical advice or attention. P337+P313 - If eye irritation persists: Get medical advice or attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P370+P378 - In case of fire: Use appropriate media to extinguish. P403+P235 - Store in a well-ventilated place. Keep cool. P405 - Store locked up. P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
N,N-dimethylformamide	N,N-Dimethylformamide / DMF / DMFA / formamide, N,N-dimethyl- / formdimethylamide / formic acid dimethylamide / formyldimethylamine / N,N-dimethylmethanamide / N,N-dimethylformamide / N,N-dimethylmethanamide / N-formyldimethylamine / NSC 5356 / U-4224	CAS-No.: 68-12-2	≥ 15 – < 25	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:gas), H332 Acute Tox. 3 (Inhalation:vapor), H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 2, H341 Carc. 1B, H350 Repr. 1B, H360 STOT SE 1, H370 STOT SE 2, H371 STOT RE 2, H373
4-Methyl-2-oxo-2H-1-benzopyran-7-yl-β-D-glucopyranosiduronic acid ; 4-Methylumbellifery β-D-glucuronide	4-Methyl-2-oxo-2H-1-benzopyran-7-yl-.beta.-D-glucopyranosiduronic acid; 4-Methylumbellifery .beta.-D-glucuronide	CAS-No.: 6160-80-1	≥ 1 – < 5	Aquatic Acute 3, H402 Aquatic Chronic 3, H412

Full text of hazard classes and H-statements : see section 16

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.
First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
Personal protection for first-aid responders.	: First-aiders should consider self-protection and use the recommended personal protective equipment (see section 8).

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Eye irritation.

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Symptoms/effects after ingestion : None under normal conditions.
Chronic symptoms : May damage fertility or the unborn child.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment : Treat symptomatically.

SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable liquid and vapor.
Explosion hazard : No direct explosion hazard.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective actions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
Environmental precautions : Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.2. Methods and materials for containment and cleaning up

For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.
For further information refer to section 13.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

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Hygiene measures : Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
Storage temperature : 2 – 8 °C
Packaging materials : Always store product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

N,N-dimethylformamide (68-12-2)	
Canada (Alberta) - Occupational Exposure Limits	
Local name	Dimethylformamide
OEL TWA	30 mg/m ³ 10 ppm
Notations and remarks	Substance may be readily absorbed through intact skin.
Regulatory reference	Alberta Regulation 191/2021
Canada (Quebec) - Occupational Exposure Limits	
Local name	N,N-Dimethylformamide
VEMP (OEL TWAEV)	5 ppm
Notations and remarks	Pc, C3
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Dimethylformamide
OEL TWA	5 ppm
Notations and remarks	Skin (the substance that contribute significantly to the overall exposure by the skin route); IARC group 2A carcinogen
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	Dimethylformamide
OEL TWA	15 mg/m ³ 5 ppm
Notations and remarks	TLV® Basis: Liver dam; eye & URT irr. Notations: Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEI
Regulatory reference	ACGIH 2025
Canada (New Brunswick) - Occupational Exposure Limits	
Local name	Dimethylformamide
OEL TWA	10 ppm
Notations and remarks	Liver dam

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N,N-dimethylformamide (68-12-2)	
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	Dimethylformamide
OEL TWA	15 mg/m ³
	5 ppm
Notations and remarks	TLV® Basis: Liver dam; eye & URT irr. Notations: Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEI
Regulatory reference	ACGIH 2025
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	Dimethylformamide
OEL TWA	15 mg/m ³
	5 ppm
Notations and remarks	TLV® Basis: Liver dam; eye & URT irr. Notations: Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEI
Regulatory reference	ACGIH 2025
Canada (Nunavut) - Occupational Exposure Limits	
Local name	Dimethylformamide
OEL TWA	10 ppm
OEL STEL	15 ppm
Notations and remarks	Skin, Designated substance
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)
Canada (Northwest Territories) - Occupational Exposure Limits	
Local name	Dimethylformamide
OEL TWA	10 ppm
OEL STEL	15 ppm
Notations and remarks	Skin, Designated substance
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-090-2024)
Canada (Ontario) - Occupational Exposure Limits	
Local name	Dimethylformamide
OEL TWAEV	10 ppm
Notations and remarks	Skin
Regulatory reference	Occupational Health and Safety Act, R.S.O. 1990, c. O.1 - R.R.O. 1990, Reg. 833: Control of exposure to biological or chemical agents
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	Dimethylformamide
OEL TWA	15 mg/m ³
	5 ppm
Notations and remarks	TLV® Basis: Liver dam; eye & URT irr. Notations: Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEI

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N,N-dimethylformamide (68-12-2)	
Regulatory reference	ACGIH 2025
Canada (Saskatchewan) - Occupational Exposure Limits	
Local name	Dimethylformamide
OEL TWA	10 ppm
OEL STEL	15 ppm
Notations and remarks	Skin, Designated Chemical Substance
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state : Liquid
Appearance : No data available
Color : Clear
Odor : Characteristic Slight
Odor threshold : No data available
pH : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Relative evaporation rate (ether=1) : No data available

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Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Explosion limits	: No data available
Particle characteristics	: No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

Reactivity	: Flammable liquid and vapor.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
Incompatible materials	: No additional information available
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hardening time:	: No additional information available

SECTION 11 Toxicological information

11.1. Likely routes of exposure

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Soleris® 2, E. coli Supplement (MUG)	
Unknown acute toxicity (GHS CA)	1.05% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 1.05% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 1.05% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
N,N-dimethylformamide (68-12-2)	
LD50 oral rat	3010 mg/kg body weight (BASF test, Rat, Male / female, Experimental value, Oral, 7 day(s))
LD50 oral	3000 mg/kg
LD50 dermal rat	> 3160 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LD50 dermal rabbit	4720 mg/kg Source: ChemIDPlus
LD50 dermal	3500 mg/kg
LC50 Inhalation - Rat	> 5.85 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))

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N,N-dimethylformamide (68-12-2)	
LC50 Inhalation - Rat (Vapors)	4.7 mg/l/4h
ATE CA (oral)	3000 mg/kg body weight
ATE CA (Dermal)	3500 mg/kg body weight
ATE CA (Gases)	4500 ppmV/4h
ATE CA (vapors)	4.7 mg/l/4h
ATE CA (dust,mist)	1.5 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.

N,N-dimethylformamide (68-12-2)	
pH	6.7 (4.0 %)

Serious eye damage/irritation : Causes serious eye irritation.

N,N-dimethylformamide (68-12-2)	
pH	6.7 (4.0 %)

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Suspected of causing genetic defects.

Carcinogenicity : May cause cancer.

N,N-dimethylformamide (68-12-2)	
IARC group	2A - Probably carcinogenic to humans

Reproductive toxicity : May damage fertility or the unborn child.

STOT-single exposure : Causes damage to organs.

N,N-dimethylformamide (68-12-2)	
STOT-single exposure	Causes damage to organs. May cause damage to organs.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

N,N-dimethylformamide (68-12-2)	
LOAEL (oral,rat,90 days)	475 mg/kg body weight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
NOAEL (oral,rat,28 days)	238 mg/kg bw/day
NOAEL (oral,rat,90 days)	238 mg/kg body weight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

N,N-dimethylformamide (68-12-2)	
Viscosity, kinematic	No data available in the literature

Symptoms/effects after inhalation : None under normal conditions.

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Eye irritation.

Symptoms/effects after ingestion : None under normal conditions.

Chronic symptoms : May damage fertility or the unborn child.

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SECTION 12 Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified.
Hazardous to the aquatic environment, long-term (chronic)	: Not classified.

N,N-dimethylformamide (68-12-2)	
LC50 - Fish [1]	7100 mg/l (EPA 600/3-75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	13100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 1000 mg/l (DIN 38412-9, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 96h - Algae [1]	> 1000 mg/l Source: ECHA
NOEC chronic fish	> 102 mg/l Test organisms (species): Oryzias latipes Duration: '21 d'
NOEC (chronic)	1500 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic crustacea	1500 mg/l
LOEC (chronic)	3000 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
4-Methyl-2-oxo-2H-1-benzopyran-7-yl-β-D-glucopyranosiduronic acid ; 4-Methylumbellifery β-D-glucuronide (6160-80-1)	
LC50 - Fish [1]	178.634 mg/l Source: Ecological Structure Activity Relationships
EC50 96h - Algae [1]	55.971 mg/l Source: Ecological Structure Activity Relationships

12.2. Persistence and degradability

Soleris® 2, E. coli Supplement (MUG)	
Persistence and degradability	Not rapidly degradable
N,N-dimethylformamide (68-12-2)	
Persistence and degradability	Biodegradable in the soil, Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.9 g O ₂ /g substance
Chemical oxygen demand (COD)	0.3645 g O ₂ /g substance
ThOD	1.863 g O ₂ /g substance
4-Methyl-2-oxo-2H-1-benzopyran-7-yl-β-D-glucopyranosiduronic acid ; 4-Methylumbellifery β-D-glucuronide (6160-80-1)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

N,N-dimethylformamide (68-12-2)	
Bioaccumulative potential	Not bioaccumulative.

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N,N-dimethylformamide (68-12-2)	
BCF - Fish [1]	0.3 – 1.2 l/kg (OECD 305: Bioconcentration: Flow-Through Fish Test, 56 day(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Test duration: 8 weeks)
Partition coefficient n-octanol/water (Log Pow)	-1.01 (Experimental value)
4-Methyl-2-oxo-2H-1-benzopyran-7-yl-β-D-glucopyranosiduronic acid ; 4-Methylumbellifery β-D-glucuronide (6160-80-1)	
Partition coefficient n-octanol/water (Log Pow)	-0.2668 Source: Quantitative Structure Activity Relation

12.4. Mobility in soil

N,N-dimethylformamide (68-12-2)	
Surface tension	35.5 mN/m (2520 °C)
Ecology - soil	Highly mobile in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.38 (log Koc, PCKOCWIN v1.66, QSAR)
4-Methyl-2-oxo-2H-1-benzopyran-7-yl-β-D-glucopyranosiduronic acid ; 4-Methylumbellifery β-D-glucuronide (6160-80-1)	
Mobility in soil	0.1211 Source: EPI Suite

12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No

SECTION 13 Disposal considerations

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Flammable vapors may accumulate in the container. Do not re-use empty containers.
Ecological waste information	: The waste of the product should be considered as hazardous as the product itself, with the likelihood of impacting the environment in the same way. Consider the handling and disposal of the waste as defined by the product itself.

SECTION 14 Transport information





In accordance with TDG / DOT / IMDG / IATA

TDG	DOT	IMDG	IATA
14.1. UN Number			
UN2265	UN2265	2265	2265
14.2. UN Proper Shipping Name			
N,N-DIMETHYLFORMAMIDE	N,N-Dimethylformamide	N,N-DIMETHYLFORMAMIDE	n,n-Dimethylformamide
Transport document description			
UN2265 N,N-DIMETHYLFORMAMIDE, 3, III	UN2265 N,N-Dimethylformamide, 3, III	UN 2265 N,N-DIMETHYLFORMAMIDE, 3, III (58°C c.c.)	UN 2265 n,n-Dimethylformamide, 3, III

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TDG	DOT	IMDG	IATA
14.3. Transport hazard class(es)			
3	3	3	3
			
14.4. Packing group, if applicable			
III	III	III	III
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available			

14.6. Special precautions for user

TDG

UN-No. (TDG) : UN2265
 Explosive Limit and Limited Quantity Index : 5 L
 Excepted quantities (TDG) : E1
 Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 60 L
 Emergency Response Guide (ERG) Number : 129

DOT

UN-No. (DOT) : UN2265
 DOT Special Provisions (49 CFR 172.102) : B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.
 IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
 T2 - 1.5 178.274(d)(2) Normal..... 178.275(d)(3)
 TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.
 DOT Packaging Exceptions (49 CFR 173.xxx) : 150
 DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
 DOT Packaging Bulk (49 CFR 173.xxx) : 242
 DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L
 DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L
 DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

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IMDG	
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T2
Tank special provisions (IMDG)	: TP2
EmS-No. (Fire)	: F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage)	: S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS
Stowage category (IMDG)	: A
Flash point (IMDG)	: 58°C c.c.
Properties and observations (IMDG)	: Colorless liquid. Flashpoint: 58°C c.c. Explosive limits: 2.2% to 16%. Miscible with water. May react violently with oxidizing materials.
MFAG-No	: 129

IATA	
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 366
CAO max net quantity (IATA)	: 220L
ERG code (IATA)	: 3L

14.7. Transport in bulk according to Annex II of MARPOL 73/78⁹ and the IBC Code¹⁰

Not applicable

SECTION 15 Regulatory information

N,N-dimethylformamide (68-12-2)

Listed on the Canadian DSL (Domestic Substances List)

Canada DSL & NDSL Flags	Significant New Activity (SNAc) provisions of the Act apply
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4-Methyl-2-oxo-2H-1-benzopyran-7-yl-β-D-glucopyranosiduronic acid ; 4-Methylumbellifery β-D-glucuronide (6160-80-1)

Listed on the Canadian DSL (Domestic Substances List)

Canada DSL & NDSL Flags	Significant New Activity (SNAc) provisions of the Act apply
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N,N-dimethylformamide (68-12-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on INSQ (Mexican National Inventory of Chemical Substances)

4-Methyl-2-oxo-2H-1-benzopyran-7-yl-β-D-glucopyranosiduronic acid ; 4-Methylumbellifery β-D-glucuronide (6160-80-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

SECTION 16 Other Information

Issue date	: 08-25-2025
Revision date	: 06-15-2026

Soleris® 2, E. coli Supplement (MUG)

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

Supersedes

: 08-25-2025

Full text of hazard classes and H-statements:

H226	Flammable liquid and vapor
H315	Causes skin irritation
H319	Causes serious eye irritation
H331	Toxic if inhaled
H332	Harmful if inhaled
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child
H370	Causes damage to organs.
H371	May cause damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

Safety Data Sheet (SDS), Canada

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.