Start-R

SDS = Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Issue date: 1/1/2015 Revision date: 10/12/2021 Supersedes version of: 12/9/2015 Version: 3.0

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

1.1. Product identifier

Product form : Mixture
Product name : Start-R
Product code : 300.091.000

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

1.2.1. Relevant identified uses

Main use category : Consumer use,Professional use
Use of the substance/mixture : Fertiliser

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Mills Nutrients B.V.
Aalsmeerderweg 249K
NL– 1432 CM Aalsmeer
The Netherlands
T +31 (0)20 2233 957
info@mills-nutrients.com - www.mills-nutrients.com

1.4. Emergency telephone number

Emergency number : National Poisons Information Service
+44 870 600 6266
worldwide: http://www.who.int/ipcs/poisons/centre/directory/en

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH210 - Safety data sheet available on request.

2.3. Other hazards

Other hazards which do not result in classification : Blends with less than 80% ammonium nitrate are not classified as irritating to eyes (Eye Irrit.2, H319) based on studies conducted by Fertilizers Europe in 2010.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ammonium Nitrate	CAS-No.: 6484-52-2 EC-No.: 229-347-8 REACH-no: 01-2119490981-27	13 – 20.4	Ox. Sol. 3, H272 Eye Irrit. 2, H319

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Ammonium Nitrate	CAS-No.: 6484-52-2 EC-No.: 229-347-8 REACH-no: 01-2119490981-27	(80 <C ≤ 100) Eye Irrit. 2, H319

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact : Wash immediately with lots of water. Soap may be used. In all cases of doubt, or when symptoms persist, seek medical attention. Wash skin with plenty of water.

First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to a doctor if irritation persists. Rinse eyes with water as a precaution.

First-aid measures after ingestion : Rinse mouth with water. Drink two glasses of water. Do not induce vomiting. Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation : None under normal use.

Symptoms/effects after skin contact : Contact during a long period may cause light irritation.

Symptoms/effects after eye contact : Irritation of the eye tissue.

Symptoms/effects after ingestion : Nausea. Vomiting. Diarrhoea. AFTER INGESTION OF HIGH QUANTITIES: Disturbances of heart rate. Respiratory difficulties.

Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Gastrointestinal complaints. Affection of the renal tissue. Disturbed tactile sensibility. Paralysis.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Adapt extinguishing media to the environment for surrounding fires. Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Non combustible.

Explosion hazard : Not applicable.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.

Protection during firefighting : Fire fighters have to ware suited clothing and an independent repertory device (SCBA) that covers the face completely with pressure. Clothing for fire fighters (including helmets, protective boots and gloves) according to European Regulation EN 469, give a basic protection level for an incident with chemicals. 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 : Ensure adequate ventilation.

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing. Concerning personal protective equipment to use, see section 8.

Emergency procedures : Ventilate spillage area. Clear the danger area. Notify experts. Mark the danger area. Corrosion-proof appliances. Wash contaminated clothes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Wear suitable protective clothing. Reactivity hazard: compressed air/oxygen apparatus. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment : Plug the leak, cut off the supply. Dam up the liquid spill. Clean spills promptly.

Methods for cleaning up : Take up liquid spill into absorbent material. Collect all waste in suitable and labelled containers and dispose according to local legislation. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Scoop absorbed substance into closing containers. Wash down leftovers with plenty of water. Wash clothing and equipment after handling.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

Concerning personal protective equipment to use, see item 8. Concerning disposal elimination after cleaning, see item 13. 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. Wear personal protective equipment. Ensure adequate ventilation. Use personal protective equipment as required. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep container tight closed. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash Wash hands thoroughly after handling. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Keep container closed when not in use.
Storage conditions	:	Store in original container. Store in a well-ventilated place. Keep cool.
Storage temperature	:	10 – 30 °C
Heat and ignition sources	:	KEEP SUBSTANCE AWAY FROM: heat sources.
Storage area	:	Keep container in a well-ventilated place. Keep out of direct sunlight. Meet the legal requirements.
Special rules on packaging	:	meet the legal requirements. correctly labelled. Secure fragile packagings in solid containers.
Packaging materials	:	SUITABLE MATERIAL: stainless steel, synthetic material.

7.3. Specific end use(s)

Fertilisers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

8.2.2. Personal protection equipment

Personal protective equipment:
Safety glasses. Gloves. Protective clothing.

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Eye protection. Safety glasses

Eye protection			
Type	**Field of application**	**Characteristics**	**Standard**
Safety glasses	If there is a risk of liquid being splashed :		EN 166

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Protective gloves

Hand protection					
Type	**Material**	**Permeation**	**Thickness (mm)**	**Penetration**	**Standard**
	Latex, Nitrile rubber	6 (> 480 minutes)			EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:
Respiratory protection not required in normal conditions. Ensure adequate air ventilation.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	liquid.
Colour	:	Dark brown.
Odour	:	characteristic.
Odour threshold	:	No data available
pH	:	7
Relative evaporation rate (butylacetate=1)	:	No data available
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
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Density	:	1.07 kg/l
Solubility	:	Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	Not explosive.
Oxidising properties	:	Not oxidising.
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts violently with (some) acids/bases.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

May react violently with reducing agents.

10.4. Conditions to avoid

Avoid high temperatures. Keep out of frost.

10.5. Incompatible materials

May be corrosive to metals. Keep away from : Strong acids. Oxidizing agent. Halogens. Reducing agent. Strong bases.

10.6. Hazardous decomposition products

On heating/burning: release of toxic and corrosive gases/vapours nitrous vapours sulphur oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

Ammonium Nitrate (6484-52-2)

LD50 oral rat	2950 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation	:	Not classified pH: 7
Serious eye damage/irritation	:	Not classified pH: 7
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
STOT-single exposure	:	Not classified
STOT-repeated exposure	:	Not classified
Aspiration hazard	:	Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	:	The product is not considered harmful to aquatic organisms nor 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

Ammonium Nitrate (6484-52-2)

EC50 - Crustacea [1]	490 mg/l Test organisms (species): Daphnia magna

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects : No additional information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.

Waste treatment methods : Do not discharge into drains or rivers. Recycle product or dispose properly. Remove to an authorized waste treatment plant. Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Disposal must be done according to official regulations.

European List of Waste (LoW) code : 06 03 14 - solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1 UN number

UN-No. (ADR) : Not applicable

UN-No. (IMDG) : Not applicable

UN-No. (IATA) : Not applicable

UN-No. (ADN) : Not applicable

UN-No. (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable

Proper Shipping Name (IMDG) : Not applicable

Proper Shipping Name (IATA) : Not applicable

Proper Shipping Name (ADN) : Not applicable

Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR)	:	Not applicable
Packing group (IMDG)	:	Not applicable
Packing group (IATA)	:	Not applicable
Packing group (ADN)	:	Not applicable
Packing group (RID)	:	Not applicable

14.5. Environmental hazards

Dangerous for the environment	:	No
Marine pollutant	:	No
Other information	:	No supplementary information available

14.6. Special precautions for user

Overland transport

No data available

Transport by sea

No data available

Air transport

No data available

Inland waterway transport

No data available

Rail transport

No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

15.1.2. National regulations

Germany

Water hazard class (WGK)	:	WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1)
Hazardous Incident Ordinance (12. BImSchV)	:	Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

Waterbezwaarlijkheid	:	11 - Weinig schadelijk voor in het water levende organismen
SZW-lijst van kankerverwekkende stoffen	:	None of the components are listed
SZW-lijst van mutagene stoffen	:	None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	:	None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	:	None of the components are listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling	:	None of the components are listed

Switzerland

Storage class (LK)	:	LK 10/12 - Liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Complete review of safety data sheet.

Abbreviations and acronyms:

CLP	CLP = Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
REACH	REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	SDS = Safety Data Sheet
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	DMEL = Derived Minimal Effect level
DNEL	DNEL = Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	PNEC = Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	Sewage treatment plant

Abbreviations and acronyms:

ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	zPzB = Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Data sources : ECHA Website: Information on Registered Substances
Handbook of Chemistry and Physics CRC Press Inc
Information suppliers
BIG-database.

Other information : DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Full text of H- and EUH-statements:

EUH210	Safety data sheet available on request.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H272	May intensify fire; oxidiser.
H319	Causes serious eye irritation.
Ox. Sol. 3	Oxidising Solids, Category 3

Safety Data Sheet (SDS), EU, MILLS

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.