

Safety Data Sheet

according to 29 CFR 1910.1200(g)

TIP TOP SOLUTION NRX-MOD COMP. B

Revision date: 12/13/2024

Product code: 00156-0481

Page 1 of 10

1. Identification

Product identifier

TIP TOP SOLUTION NRX-MOD COMP. B

Art.-No.

525 5031

Substance name: symclosene

CAS No: 87-90-1

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Primer

Details of the supplier of the safety data sheet

Manufacturer

Company name: REMA TIP TOP AG
Street: Gruber Strasse 65
Place: D-85586 Poing
Telephone: +49 (0) 8121 / 707 - 100
Responsible Department: Responsible for the safety data sheet: sds@gbk-ingelheim.de

Supplier

Company name: REMA TIP TOP / North America Inc.
Street: 1500 Industrial Blvd
Place: Madison, GA 30650, USA
Telephone: +1 800 225 7362,
Internet: www.rematiptop.com

Emergency phone number:

INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)
(USA domestic) 1 800 535 5053 or international (001) 352 323 3500
Infotrac/GBK GmbH-ID: 93591

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200

Oxidizing solids: Ox. Sol. 2

Acute toxicity: Acute Tox. 4 (oral)

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity single exposure: STOT SE 3 (respiratory tract irritation)

Hazardous to the aquatic environment: Aquatic Acute 1

Hazardous to the aquatic environment: Aquatic Chronic 1

Label elements

29 CFR Part 1910.1200

Signal word: Danger

Pictograms:

**Hazard statements**

May intensify fire; oxidizer

Harmful if swallowed

Causes serious eye irritation

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

TIP TOP SOLUTION NRX-MOD COMP. B

Revision date: 12/13/2024

Product code: 00156-0481

Page 2 of 10

May cause respiratory irritation
Very toxic to aquatic life with long lasting effects

Precautionary statements

Avoid release to the environment.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.

Hazards not otherwise classified

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

3. Composition/information on ingredients**Substances**

Sum formula: C3 CL3 N3 O3
Molecular weight: 232,41 g/mol

Hazardous components

CAS No	Components	Quantity
87-90-1	symclosene	> 99 %

4. First-aid measures**Description of first aid measures****General information**

Remove contaminated soaked clothing immediately.
If you feel unwell, seek medical advice.
Take away from danger area and lay down affected person.

After inhalation

Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.
In the event of symptoms refer for medical treatment.

After contact with skin

Wash off with soap and plenty of water.
Consult a doctor if skin irritation persists.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical treatment by eye specialist.

After ingestion

Do not induce vomiting.
Summon a doctor immediately.
Rinse out mouth and give plenty of water to drink.
Never give anything by mouth to an unconscious person.
Induce vomiting only upon the advice of a physician.

Most important symptoms and effects, both acute and delayed

May intensify fire; oxidizer.
Harmful if swallowed.
Causes serious eye irritation.
May cause respiratory irritation.
Attention, beware danger of aspiration.

OSHA Hazard Communication: This material is considered hazardous by the OSHA Hazard Communication Standard 29CFR 1910.1200.

Indication of any immediate medical attention and special treatment needed



Safety Data Sheet

according to 29 CFR 1910.1200(g)

TIP TOP SOLUTION NRX-MOD COMP. B

Revision date: 12/13/2024

Product code: 00156-0481

Page 3 of 10

Treat symptoms.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Product does not burn, fire-extinguishing activities according to surrounding.
Foam, carbon dioxide (CO₂), dry chemical, water-spray.

Unsuitable extinguishing media

Full water jet.

Specific hazards arising from the chemical

Fire may produce:
Carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x).
Chlorine compounds
May intensify fire; oxidizer.
The product reacts with a little of water and forms highly explosive Nitrogen trichloride.

Special protective equipment and precautions for fire-fighters

Wear self-contained breathing apparatus and protective suit.

Additional information

Vapours are heavier than air and spread along ground.
Cool containers at risk with water spray jet.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General advice

Ensure adequate ventilation.
Keep away sources of ignition.
Avoid the formation and deposition of dust.
Keep away noninvolved persons.

For non-emergency personnel

Do not breathe dust.
Avoid contact with skin, eyes and clothing.

For emergency responders

Use personal protective clothing.
Respirator must be worn if exposed to dust.(Particle filter P2)

Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For containment

Avoid dust formation.

For cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
Shovel into suitable container for disposal.

Reference to other sections

Observe protective instructions (see Sections 7 and 8).
Information for disposal look up chapter 13.

7. Handling and storage

Precautions for safe handling



Safety Data Sheet

according to 29 CFR 1910.1200(g)

TIP TOP SOLUTION NRX-MOD COMP. B

Revision date: 12/13/2024

Product code: 00156-0481

Page 4 of 10

Advice on safe handling

Keep container tightly closed.
Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.
Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition.

Advice on general occupational hygiene

Do not inhale dust.
Wash hands before breaks and immediately after handling the product.
When using do not eat, drink or smoke.
Remove and wash contaminated clothes before re-use.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a dry, cool and well-ventilated place.
Protect from atmospheric moisture and water.

Hints on joint storage

Incompatible with:
Acids and bases
Oxidizing agents, Reducing agents
Water, organic compounds, combustible substances

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

8. Exposure controls/personal protection

Control parameters

Additional advice on limit values

Observe TLV for common dust, if applicable.

Exposure controls

Appropriate engineering controls

Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tightly fitting goggles.
Eye wash bottle with pure water.

Hand protection

In full or splash contact: Glove of nitrile rubber, layer thickness 0,11 mm, breakthrough time > 480 min.
This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.
Requirements can vary as a function of the use. Therefore, it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

Skin protection

Long sleeved clothing.

Respiratory protection

Breathing apparatus (particle filter) only if dust is formed. (Particle filter P2)

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: Crystalline

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

TIP TOP SOLUTION NRX-MOD COMP. B

Revision date: 12/13/2024

Product code: 00156-0481

Page 5 of 10

Color: White
Odor: Pungent

Test method**Changes in the physical state**

Melting point/freezing point: n.d.
Boiling point or initial boiling point and boiling range: n.a.
Sublimation point: n.a.
Softening point: n.d.
Flash point: > 250 °C Open cup

Flammability

Solid/liquid: n.d.

Explosive properties

The product is not explosive.

Lower explosion limits: n.a.
Upper explosion limits: n.a.
Auto-ignition temperature: n.a.

Self-ignition temperature

Solid: n.d.
Gas: n.a.

Decomposition temperature: > 225 °C

pH-Value (at 20 °C): 2,7 - 3,3 10 g/l

Viscosity / dynamic:
(at 25 °C) n.a.

Viscosity / kinematic: n.a.

Flow time: n.a.

Water solubility:
(at 20 °C) 10 g/L

Solubility in other solvents

n.d.

Partition coefficient n-octanol/water: n.a.

Vapor pressure:
(at 20 °C) n.a.

Density (at 20 °C): 2,07 g/cm³

Bulk density: 850 kg/m³

Relative vapour density: n.a.

Other information**Information with regard to physical hazard classes**

Sustaining combustion: Not sustaining combustion

Oxidizing properties
Oxidising solid

Other safety characteristics

Solvent separation test: 0 %

Solvent content: 0 %

Solid content: 100 %

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

TIP TOP SOLUTION NRX-MOD COMP. B

Revision date: 12/13/2024

Product code: 00156-0481

Page 6 of 10

Evaporation rate:

n.a.

10. Stability and reactivity**Reactivity**

No decomposition if stored and applied as directed.

Chemical stability

Stability: Stable

Stable under normal conditions.

Possibility of hazardous reactions

Hazardous reactions: Will not occur

Reacts with:

Acids and bases

Oxidizing agents, Reducing agents

Water, organic compounds, combustible substances

Conditions to avoid

To avoid thermal decomposition, do not overheat.

Incompatible materials

Acids and bases

Oxidizing agents, Reducing agents

Water, organic compounds, combustible substances

Hazardous decomposition products

Contact with acids releases toxic gas.

Fire may produce:

Carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x)

Chlorine compounds

11. Toxicological information**Route(s) of Entry**

Skin and eye contact, inhalation and ingestion.

Information on toxicological effects**Acute toxicity**

Harmful if swallowed

LD50/oral/rat: 406 m/kg

Irritation and corrosivity

Serious eye damage/eye irritation: Causes serious eye irritation

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitizing effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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.

Mutagenicity: Ames-Test: Negative

Specific target organ toxicity (STOT) - single exposure

May cause respiratory irritation (symclosene)

Specific target organ toxicity (STOT) - repeated exposure

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

Carcinogenicity (OSHA): Not listed

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

TIP TOP SOLUTION NRX-MOD COMP. B

Revision date: 12/13/2024

Product code: 00156-0481

Page 7 of 10

Carcinogenicity (IARC): Not listed

Carcinogenicity (NTP): Not listed

Aspiration hazard

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

Additional information on tests

This product is classified in accordance with the GHS regulations.

Information on other hazards**Other information**

Effects of breathing high concentrations of vapour may include. Headache, dizziness, weakness, unconsciousness.

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

12. Ecological information**Ecotoxicity**

LC50/Oncorhynchus mykiss/96 h = 0,08 mg/l

EC50/Daphnia magna/48 h = 0,17 mg/l

Very toxic to aquatic life with long lasting effects.

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

Other adverse effects

Hazardous water pollutant.

Further information

Do not flush into surface water or sanitary sewer system.

13. Disposal considerations**Waste treatment methods****Disposal recommendations**

Where possible recycling is preferred to disposal.

Can be incinerated, when in compliance with local regulations.

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of like the product.

14. Transport information**U.S. DOT 49 CFR 172.101****UN number or ID number:**

UN 2468

Proper shipping name:

TRICHLOROISOCYANURIC ACID, DRY

Transport hazard class(es):

5.1

Packing group:

II

Hazard label:

5.1

Safety Data Sheet

according to 29 CFR 1910.1200(g)

TIP TOP SOLUTION NRX-MOD COMP. B

Revision date: 12/13/2024

Product code: 00156-0481

Page 8 of 10

**Marine transport (IMDG)**

UN number or ID number: UN 2468
UN proper shipping name: TRICHLOROISOCYANURIC ACID, DRY
Transport hazard class(es): 5.1
Packing group: II
Hazard label: 5.1



Special Provisions: -
Limited quantity: 1 kg
Excepted quantity: E2
EmS: F-A, S-Q

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number: UN 2468
UN proper shipping name: TRICHLOROISOCYANURIC ACID, DRY
Transport hazard class(es): 5.1
Packing group: II
Hazard label: 5.1



Limited quantity Passenger: 2.5 kg
Passenger LQ: Y544
Excepted quantity: E2
IATA-packing instructions - Passenger: 558
IATA-max. quantity - Passenger: 5 kg
IATA-packing instructions - Cargo: 562
IATA-max. quantity - Cargo: 25 kg

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes

**Special precautions for user**

Handle in accordance with good industrial hygiene and safety practice.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

The transport takes place only in approved and appropriate packaging.

Other applicable information**15. Regulatory information****U.S. Regulations****National Inventory TSCA**

TSCA listed

National regulatory information

Safety Data Sheet

according to 29 CFR 1910.1200(g)

TIP TOP SOLUTION NRX-MOD COMP. B

Revision date: 12/13/2024

Product code: 00156-0481

Page 9 of 10

SARA Section 311/312 Hazards:

symclosene (87-90-1): Fire hazard, Immediate (acute) health hazard

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

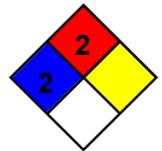
16. Other information

Hazardous Materials Identification System (HMIS)

Health: 2
Flammability: 2
Physical Hazard: 0

NFPA Hazard Ratings

Health: 2
Flammability: 2
Reactivity:
Unique Hazard:



Changes

Revision date: 13.12.2024
Revision No: 1,3

This data sheet contains changes from the previous version in section(s): 1,2,3,6,9,10,11,12,14.

Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
IMDG = International Maritime Code for Dangerous Goods
IATA/ICAO = International Air Transport Association / International Civil Aviation Organization
MARPOL = International Convention for the Prevention of Pollution from Ships
IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

GHS = Globally Harmonized System of Classification and Labelling of Chemicals
REACH = Registration, Evaluation, Authorization and Restriction of Chemicals
CAS = Chemical Abstract Service
EN = European norm
ISO = International Organization for Standardization
DIN = Deutsche Industrie Norm
PBT = Persistent Bioaccumulative and Toxic
vPvB = Very Persistent and very Bio-accumulative

LD = Lethal dose
LC = Lethal concentration
EC = Effect concentration
IC = Median immobilisation concentration or median inhibitory concentration

Other data

The information in this document is based on the present state of knowledge and is applicable to the product with regard to appropriate safety precautions.
The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge.
The delivery specifications are contained in the corresponding product sheet.



Safety Data Sheet

according to 29 CFR 1910.1200(g)

TIP TOP SOLUTION NRX-MOD COMP. B

Revision date: 12/13/2024

Product code: 00156-0481

Page 10 of 10

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)