

# Messages

## CreateDenom

Creates a denom offactory/{creator address}/{subdenom} given the denom creator address and the subdenom. Subdenoms can contain[a-zA-Z0-9./] .

```
message MsgCreateDenom { string sender = 1 [ (gogoproto.moretags) = "yaml:\\"sender\\""; string subdenom = 2 [ (gogoproto.moretags) = "yaml:\\"subdenom\\""; } State Modifications:
```

- Fund [Neutron DAO Treasury](#)
- with the denom creation fee from the creator address, specified inParams
- ;
- Consume an amount of gas corresponding to theDenomCreationGasConsume
- parameter specified inParams
- ;
- SetDenomMetaData
- via bank keeper;
- SetAuthorityMetadata
- for the given denom to store the admin for the created denomfactory/{creator address}/{subdenom}
- . Admin is automatically set as the Msg sender;
- Add denom to theCreatorPrefixStore
- , where a state of denoms created per creator is kept.

## Mint

Minting of a specific denom is only allowed for the creator of the denom registered duringCreateDenom

```
message MsgMint { string sender = 1 [ (gogoproto.moretags) = "yaml:\\"sender\\""; cosmos.base.v1beta1.Coin amount = 2 [ (gogoproto.moretags) = "yaml:\\"amount\\""; (gogoproto.nullable) = false ]; } State Modifications:
```

- Safety check the following\* Check that the denom minting is created viatokenfactory
- - module
- - Check that the sender of the message is the admin of the denom
- Mint designated amount of tokens for the denom viabank
- module

## Burn

Burning of a specific denom is only allowed for the creator of the denom registered duringCreateDenom

```
message MsgBurn { string sender = 1 [ (gogoproto.moretags) = "yaml:\\"sender\\""; cosmos.base.v1beta1.Coin amount = 2 [ (gogoproto.moretags) = "yaml:\\"amount\\""; (gogoproto.nullable) = false ]; } State Modifications:
```

- Safety check the following\* Check that the denom has been created viatokenfactory
- - module
- - Check that the sender of the message is the admin of the denom
- Burn designated amount of tokens for the denom viabank
- module

## ForceTransfer

Force transferring of a specific denom is only allowed for the creator of the denom registered duringCreateDenom .

```
message MsgForceTransfer { option (amino.name) = "osmosis/tokenfactory/force-transfer";
```

```
string sender = 1 [ (gogoproto.moretags) = "yaml:\\"sender\\""; cosmos.base.v1beta1.Coin amount = 2 [ (gogoproto.moretags) = "yaml:\\"amount\\""; (gogoproto.nullable) = false ]; string transferFromAddress = 3 [ (gogoproto.moretags) = "yaml:\\"transfer_from_address\\""; string transferToAddress = 4 [ (gogoproto.moretags) = "yaml:\\"transfer_to_address\\""; } State Modifications:
```

- Safety check the following\* Check that the denom has been created viatokenfactory
- - module

- - Check that the sender of the message is the admin of the denom
- Send designated amount of tokens for the denom viabank
- module fromtransferFromAddress
- totransferToAddress

## ChangeAdmin

Change the admin of a denom. Note, this is only allowed to be called by the current admin of the denom.

```
message MsgChangeAdmin { string sender =
```

```
1
```

```
[
```

```
( gogoproto . moretags )
```

```
=
```

```
"yaml:\"sender\""
```

```
] ; string denom =
```

```
2
```

```
[
```

```
( gogoproto . moretags )
```

```
=
```

```
"yaml:\"denom\""
```

```
] ; string newAdmin =
```

```
3
```

```
[
```

```
( gogoproto . moretags )
```

```
=
```

```
"yaml:\"new_admin\""
```

```
] ; }
```

## SetDenomMetadata

Setting of metadata for a specific denom is only allowed for the admin of the denom. It allows the overwriting of the denom metadata in the bank module.

// MsgSetDenomMetadata is the sdk.Msg type for allowing an admin account to set // the denom's bank metadata message  
MsgSetDenomMetadata { string sender =

```
1
```

```
[ ( gogoproto . moretags )
```

```
=
```

```
"yaml:\"sender\"" ] ; cosmos . bank . v1beta1 . Metadata metadata =
```

```
2
```

```
[ ( gogoproto . moretags )
```

```
=
```

```
"yaml:\"metadata\"" , ( gogoproto . nullable )
```

```
=
```

false ] ; } State Modifications:

- Check that sender of the message is the admin of denom;
- ModifyMetadata
- state entry inbank
- module to change the metadata for the denom;

## SetBeforeSendHook

Allowing to assign a CosmWasm contract to call with a BeforeSend hook for a specific denom is only allowed for the creator of the denom registered during CreateDenom .

```
message MsgSetBeforeSendHook { option (amino.name) = "osmosis/tokenfactory/set-beforesend-hook";
```

```
string sender = 1 [ (gogoproto.moretags) = "yaml:\"sender\"" ]; string denom = 2 [ (gogoproto.moretags) = "yaml:\"denom\"" ];  
string contract_addr = 3 [ (gogoproto.moretags) = "yaml:\"contract_addr\"" ]; } State Modifications:
```

- Safety check the following\* Check that the denom has been created via tokenfactory
  - - module
  - - Check that the sender of the message is the admin of the denom
  - Sets a bank hook for specified denom
  - and contract\_addr

## UpdateParams

Updates [params](#) of the module.

```
message MsgChangeAdmin { string sender =
```

```
1
```

```
[
```

```
( gogoproto . moretags )
```

```
=
```

```
"yaml:\"sender\""
```

```
] ; cosmos . bank . v1beta1 . Metadata metadata =
```

```
2
```

```
[
```

```
( gogoproto . moretags )
```

```
=
```

```
"yaml:\"metadata\""
```

```
( gogoproto . nullable )
```

```
=
```

```
false
```

```
] ; } State Modifications:
```

- Check that sender of the message is the Authority
- of the module. Currently it's an address of Neutron's [AdminModule](#)
- ModifyParams
- state entry to update params of the module [Previous Overview Next Params](#)